ADPRO FastTx by Xtralis

Installation and User Manual

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Part 201820.06

ADPRO® by xtralis™

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The ADPRO Product Installation and Upgrade DVD contains a copy of all licences relevant to Presidium.

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, the user is encouraged to try to correct the interference by one or more of the following measures; re-orientate or relocate the receiving antenna, increase the separation between the equipment and receiver, connect the equipment to a power outlet which is on a different power circuit to the receiver or consult the dealer or an experienced radio/television technician for help.

Document Conventions

The following typographic conventions are used in this document.

Convention	Description
Bold	Used to denote: emphasis Used for names of menus, menu options, toolbar buttons
Italics	Used to denote: references to other parts of this document or other documents. Used for the result of an action

The following icons are used in this document

Convention	Description
	Caution: This icon is used to indicate that there is a danger to equipment. The danger could be loss of data, physical damage, or permanent corruption of configuration details.
	Warning: This icon is used to indicate that there is a danger of electric shock. This may lead to death or permanent injury.
	Warning: This icon is used to indicate that there is a danger of inhaling dangerous substances. This may lead to death or permanent injury.

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Lightning or Related Voltage Surges

Damage or malfunction caused by lightning or related voltage surges may be excluded from the manufacturer's warranty at the manufacturer's discretion.

Safety Procedures
Installations in the United States of America and Canada

For systems installed in the United States of America and Canada the following requirement is applicable:

All equipment installations are required to be in accordance with the National Electrical Code (NEC) ANSI/NFPA 70 and the Canadian Electrical Code (CEC) Part 1, CAN/CSA C22.1.

If the power cord is not supplied with the ADPRO Presidium select the proper power cord according to your local national electricity code.

USA: use a UL listed type SVT or SJT detachable power cord.
Canada: use a CSA certified detachable power cord.

Internal Lithium Battery

Caution: The ADPRO FastTx contains an internal lithium battery.
There is danger of explosion if the battery is incorrectly replaced.
The battery is not user replaceable and can only be replaced by Xtralis or their Authorised Service Representative.

Compliance of Power Cord

Caution: If the power cord supplied with the ADPRO FastTx is not suitable for your local power connection, do not modify the cord. Please purchase a power cord that has the safety approvals appropriate for your country.

Connection to Other Equipment

Caution: All interface ports on the ADPRO FastTx must be only connected to other equipment or systems that are Safety Extra Low Voltage (SELV) rated. Failure to do so will invalidate the electrical safety approval and may cause injury or loss of life

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Declaration of Conformity

Manufacturer's Name:	Xtralis AG Pty Ltd
Manufacturer's Address:	**4 North Drive** **Virginia Park,** **236-262 East Boundary Road** **East Bentleigh** **VIC 3165** Australia.

declares, that the product(s):

Product Name:	ADPRO FastTx by Xtralis
Model Number:	AFTX-10 AFTX-20 AFTX-**10-D** AFTX-**20-D** **AFTX-10-DRU** **AFTX-20-DRU** **D = Down-the-Coax Telemetry Module** DRU = Digital Recording Upgrade
Product Options:	All

meet the Standards detailed below.

EMC Emissions	EN55022:1998 (CISPR 22:1997) / AS/NZS 3548:1995 + A1, A2 Class A Conducted and radiated emissions. FCC Part 15 Class A Conducted and radiated emissions. EN 61000-3-2:1995 Current harmonic emissions. EN 61000-3-3:1995 Voltage fluctuations and flicker.
EMC Immunity	EN 50130-4:1995 +A1 Alarm systems immunity.
Safety	EN 60950:1992 +A1, A2, A3, A4, + A11 IEC 60950:1991 +A1, A2, A3, + A4

Supplementary Information

The products listed comply with the requirements of the Low Voltage Directive 73/23/EEC (where applicable) and the EMC Directive 89/336/EEC and carries the CE marking accordingly. The products were tested in a typical configuration.

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1 Introduction

ADPRO FastTx by Xtralis is an advanced, high performance remote video audio transmission system. Available in models with 10 or 20 video inputs, ADPRO FastTx provides outstanding transmission speed and picture quality for remote security and surveillance applications where secure, event-driven transmission from multiple cameras is required. In addition, ADPRO FastTx can provide multi-user network access or dedicated telephone line connection for transmission of stored data from a remote monitoring site.

ADPRO FastTx can be installed to be fully compatible with the British Standard, BS8418. This standard applies to remotely monitored video verification systems, and is mandatory in the UK to receive police response to intrusions. It specifies superior quality equipment, best practice installation and monitoring requirements that will ensure long term, high performance operation for the end user.

Figure 1 shows a typical application using the ADPRO FastTx system supporting the following equipment:

- 20 (or 30) external alarm input devices (e.g. panic button, door switch, PIR (passive infra-red) detector or glass break switch)
- 10 (or 20) external output devices (e.g. siren, strobe light, outdoor light or door lock mechanism)
- 10 (or 20) microphones and speakers (via the VM22A Audio Switcher)

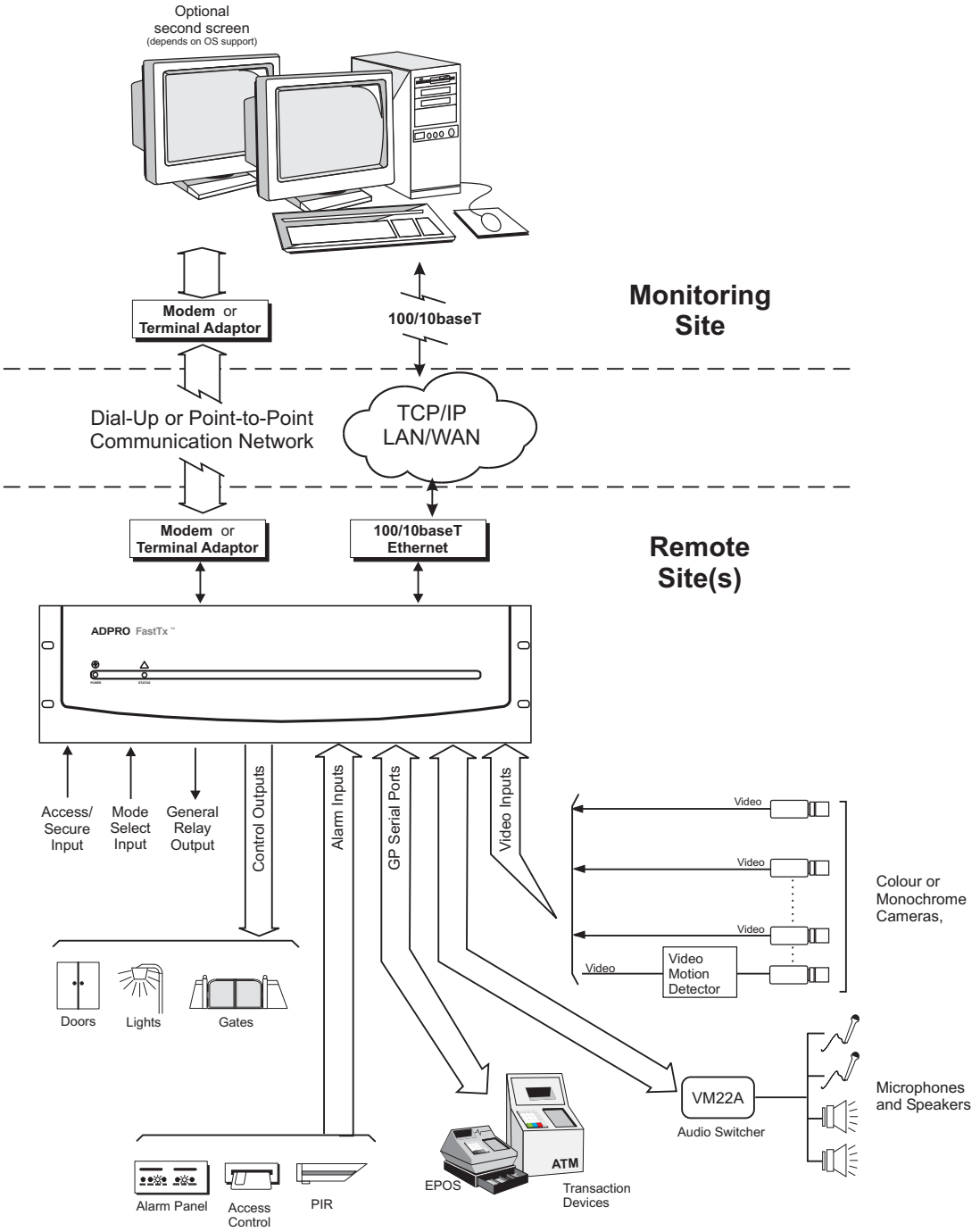

Figure 1: Typical Application

2 ADPRO FastTx Setup Instructions

This chapter contains instructions to setup the ADPRO FastTx.

2.1 Physical Location

The location within the protected premises of the ADPRO FastTx should be considered carefully and the following notes are provided for guidance.

- **Physical Security** - The ADPRO FastTx should be located where it will remain secure under all conditions, even when the premises are open or occupied. The safest place would be a room (or cabinet) with a lockable door. It should not be visible from outside the premises and not be accessible to occupant or visitor tampering.

Caution: ADPRO FastTx equipment must be used only in an INDOOR environment.

- **System Wiring** - Ideally, the ADPRO FastTx's position will be close to the centre of the site wiring. Excessive cable runs will increase the installation cost, cause voltage drops, degrade signals, and offer greater scope for EMI/RFI (electrical interference) induced faults, tampers, and false alarms. Wiring considerations should include the following:
  - The largest wiring requirement is the coaxial camera cabling and the wiring to the alarm input and output devices
  - Mains power
  - The system requires at least one video camera and associated coaxial cabling for system setup
- **Environment** - Choose an inside location that is cool and dry. Do not mount the ADPRO FastTx anywhere near machinery that generates heat, toxic fumes and dust. Do not mount the ADPRO FastTx in close proximity to sources of radio frequency or other electromagnetic radiation. These include radio transmitters (both fixed and portable), electric motors, refrigeration or air conditioning systems and high power or multiphase switching equipment.

2.2 General Power Requirements

Any AC supply connected to the ADPRO FastTx should be:

- Provided from a reliable electric supply company - typically this means that the power is not disconnected (or lost) for any more than eight hours at a time in any 36 hour period and infrequently in a single year.
- Provided from a supply bus within the protected premises that is not isolated at night (or out of hours) or time switched. The supply should be free from voltage spikes or current surges (connected to high power switching equipment or electric motors).
- Supplied directly to the ADPRO FastTx via circuits that cannot be switched off, intentionally or accidentally.

Always consider local regulations, standards, and guidelines for mains power connected systems.

Caution: The ADPRO FastTx is a Class 1 electrical product and must always be connected to a grounded power outlet.
Always ensure that ADPRO FastTx is installed adjacent to a grounded power outlet.

2.2.1 Power Conditioners and Surge Arresters

The use of an Uninterruptible Power Supply (UPS) should be considered in situations where the mains power is unreliable. A good UPS has the ability to remove interference, sags, and power surges that can cause false alarms, equipment failure or even terminal damage. UPS are used effectively on all major computer installations and the microelectronics used in many video and alarm systems (including ADPRO FastTx) are similar, both in their functionality, and their susceptibility to ‘dirty’ mains power.

Power line conditioners or surge arresters can help prevent mains distortion of voltage, current, and frequency caused by load switching, large electric motors, and lightning. These distortions can cause unreliable operation, false alarms, and equipment failure, damage or even total destruction.

2.2.2 Interference Caused by Ground Loops

In some installations, where cameras or monitors are located at a distance from the ADPRO FastTx rack, considerable ground loop currents can be generated and may cause interference.

Supplying power to different components of the ADPRO FastTx system may also cause ground loop currents. For example, cameras, monitors and the ADPRO FastTx chassis may receive power from different phases of a multi-phase supply. Wherever possible, source power to all components of the system from a common phase of the supply.

Where ground loop currents cause a problem in a ADPRO FastTx installation, the installer may reduce the effect by installing a video isolation transformer on each video channel affected.

2.3 System Wiring Considerations

2.3.1 Electromagnetic Compatibility (EMC) Issues and Instructions

When a ADPRO FastTx system is installed in accordance with the recommendations and procedures in this manual, it will meet the EMC requirements of:

- EN 55022 / AS3548 Class A, and FCC Part 15 Class A digital devices in respect to emissions, and
- EN 50130-4 Alarm Systems Immunity.

To ensure EMC compliance for your system installation, make sure of the following:

- CAT-5 Unshielded Twisted Pair (UTP) Data Cable is used for the Network port connection,
- RG-59 coaxial 75 ohm Video cable is used for all composite video connections and the cables are terminated with 75 ohm BNC connectors, and
- Where possible, all cables should be shielded (single or dual) twisted pair and the shield itself, along with the associated drain wire, terminated at the ADPRO FastTx with a connection to the chassis.

Note: The foil used in some shielded cable is only insulated on one side. Always check the foil shield with an ohm-meter and make sure that the conductive side is in contact with shield termination recommendations in this manual.

FCC Advice for Installers and Users in the United States

ADPRO FastTx equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer (or installer) or an experienced radio/TV technician for help

Caution: Changes or modifications not expressly approved by Xtralis AG Pty Ltd could void the user's authority to operate this equipment.

2.3.2 Static Discharge

ADPRO FastTx system components contain electrical parts that are susceptible to damage from static discharge. Static voltages of one to thirty kilovolts are common in unprotected environments.

When installing or servicing ADPRO FastTx equipment, it is advisable to observe the following standard precautions for handling electronic assemblies to reduce the risk of component damage:

- Minimise handling of electronic assemblies and components.
- Transport, temporarily arrange and store electronic components in recognised anti-static containers.
- Discharge any static voltage from your body before handling electronic components or wear a grounded, Safety-Standard Approved, anti-static wrist strap while handling components.

Avoid handling electronic components in areas which have a floor or work-surface capable of generating a static charge.

2.3.3 Grounding Requirements

The product safety standard that ADPRO FastTx is assessed to (IEC 60950-1) defines metallic video and/or audio cables connected between separate buildings, or between outdoor antennas and buildings, as Cable Distribution Systems and requires that products connected to these cables have a permanent connection to protective earth.

As the typical installations that ADPRO FastTx is used in has video and / or audio cables connected between separate buildings, it is required to have this permanent connection to protective earth.

ADPRO FastTx has a permanent earth connection point fitted to the lower right hand side of the rear panel.

This permanent earth connection point is an M4 tapped insert on the metalwork and is supplied with a screw and washer as shown below.

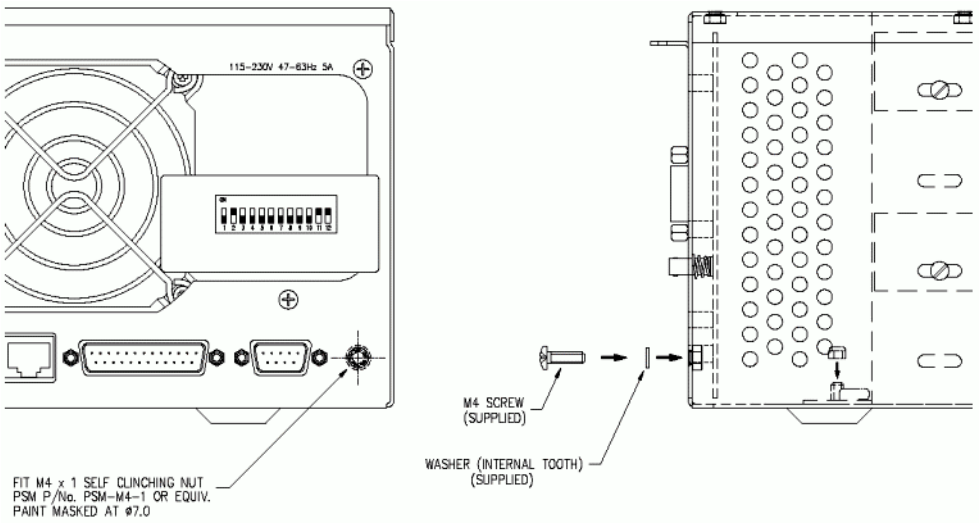

Figure 2: ADPRO FastTx Grounding Requirements

Connect this earth point to a protective earth point in the system installation using 2.5 mm 2 wire (minimum) and suitable ring terminals.

The installation protective earth point must be installed in accordance with local electrical installation codes and requirements.

2.4 Unpacking the ADPRO FastTx

When you first receive the ADPRO FastTx it is important to check that:

- You have received the equipment that you ordered.
- The box contains all the necessary components.

After unpacking the ADPRO FastTx, carefully check for any sign of damage. Any damage should be reported **before installation** to your supplier or to Xtralis directly. Check that the ADPRO FastTx packing carton contains the following items:

1	ADPRO FastTx chassis
1	DVD containing ADPRO VideoCentral software
1	Installation and User Manual
1	Crossover Ethernet cable
1	9-way screw terminal plug
4 or 6	15-way screw terminal plug (Model 5010=4, Model 5020=6)
1	IEC power cord

The DVD contains software that must be loaded onto a PC or laptop in order to program the system.

Note: The ADPRO FastTx Installation and User Manual is also available in PDF format on the DVD.

To complete ADPRO FastTx installation, you may need:

- Null modem cable
- Camera and coax cable
- External alarm switches or other devices
- ISDN Terminal Adaptor or Modem
- PC or Laptop running Microsoft® Windows® 2000 Professional or Windows® XP Professional, with an Ethernet Port or a serial port and a DVD drive.

2.5 Mounting the ADPRO FastTx

2.5.1 Rack Mounting

The ADPRO FastTx models are housed in a 3 U high chassis for mounting in a 19" rack with a layout as shown in the following figure. To ensure long term electronic equipment reliability, it is advisable to:

- mount the unit clear of other equipment that can dissipate large amounts of heat,
- ensure adequate air flow (either convective or forced) between the unit and its surroundings, and
- ensure that the fan opening on the rear panel is not blocked by other equipment.

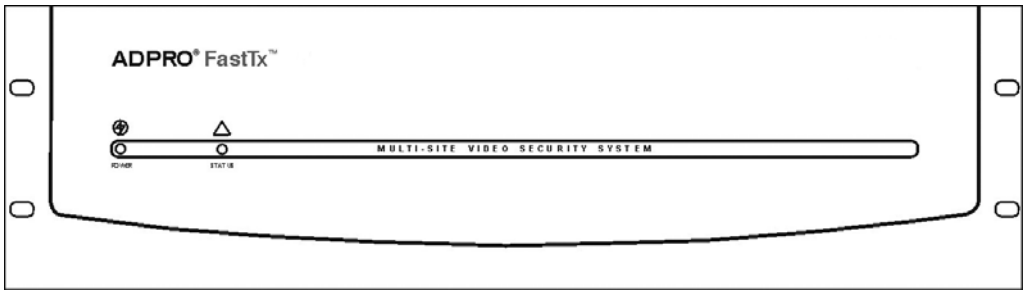

Figure 3: ADPRO FastTx Front Panel for 19 inch Rack Mount Models

2.6 Setting the Video Standard

ADPRO FastTx can be set to operate using either PAL (CCIR) or NTSC (RS170) video standards. Once a standard has been selected, all video inputs and the monitor output (composite video) will be configured to use the same standard.

To set the required video standard, use the Configuration DIP switch on the rear panel.

Configuration Switch # 10 ON = NTSC
OFF = PAL

Note: To be configured correctly, this switch must be set **before** power on.

2.7 Setting up the PC

To set up the ADPRO FastTx for operation, it must be connected to a PC installed with ADPRO VideoCentral Lite or Gold, version 10.0 or later. Contact your ADPRO supplier or sales office for details.

Connection to the ADPRO FastTx may be via an Ethernet crossover cable (supplied), via the Ethernet port on the rear of the ADPRO FastTx, or via a null modem cable (not supplied), via the Comms 2 port on the rear of the ADPRO FastTx.

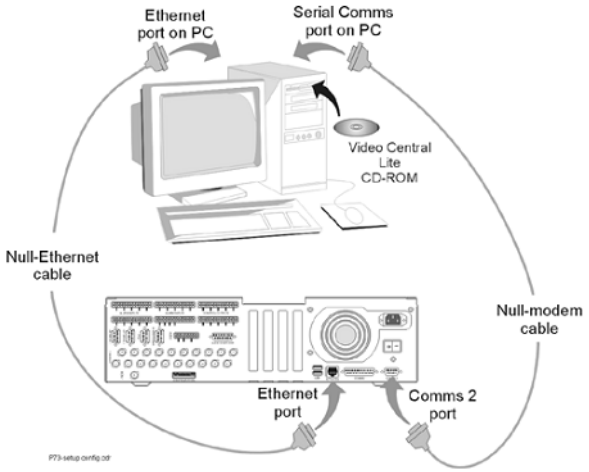

Figure 4: Typical Setup Connections - Ethernet or Serial

The following sequence briefly describes the install/upgrade process for ADPRO VideoCentral Lite. For detailed instructions of the ADPRO VideoCentral Upgrade process, please refer to the ADPRO VideoCentral Administrator Manual (Part No: 201817).

Note: To install or upgrade ADPRO VideoCentral, Administrator level access will generally be required. Power User level access may be used, but depending on the limitations placed on Windows from a security perspective, this may not be successful.

2.7.1 Logging onto Windows

When using Windows 2000 Professional or Windows XP Professional, log on as a Power User or an Administrator.

2.7.2 Removing Previous Versions of Software

If it is necessary to remove previous versions of ADPRO software installed on your PC, please refer to the ADPRO VideoCentral Administrator Manual for details.

Note: Please ensure that the database information associated with that installation is not destroyed, if it is important. Refer to the ADPRO VideoCentral Administrator Manual for details.

2.7.3 Configuring the PC for Ethernet Connection

A crossover Category 5 Ethernet cable is supplied for connection between the PC's network port and the ADPRO FastTx Ethernet (Network) port. This cable must be connected between the PC and ADPRO FastTx prior to powering on the ADPRO FastTx.

The (factory) TCP/IP **network** address for the ADPRO FastTx is: 192.168.1.1

The (factory) **subnet mask** address is 255.255.255.0

For the PC to be able to successfully connect to the ADPRO FastTx, the PC IP settings must be modified to a class C address.

1. Click the Windows **Start** button.
2. Select **Control Panel** / **Network Connections**, right click on **Local Area Connection** and select **Properties**.
3. Select **Internet Protocol (TCP/IP)** and click **Properties**.

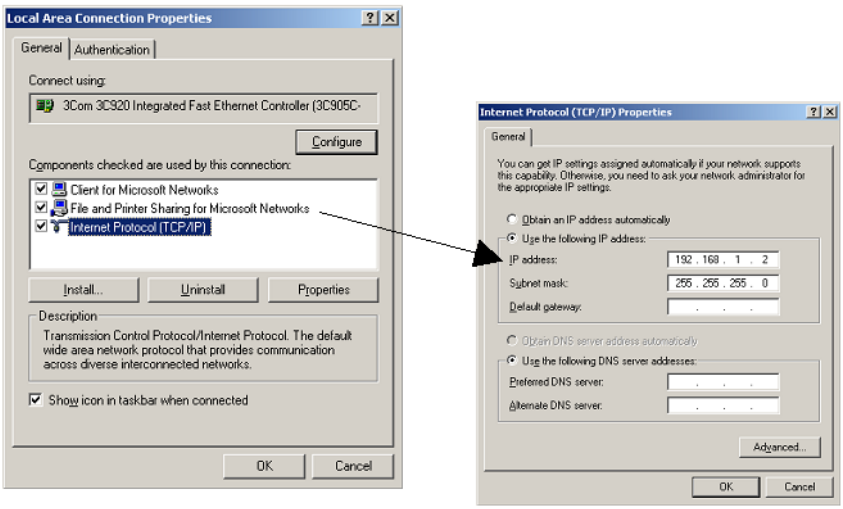
Local Area Connection Properties
General
Authentication
Connect using:
3Com 3C920 Integrated Fast Ethernet Controller (3C905C-
Configure
Components checked are used by this connection:
Client for Microsoft Networks
File and Printer Sharing for Microsoft Networks
Internet Protocol (TCP/IP)
Install...
Uninstall
Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in taskbar when connected
OK
Cancel
Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 1 . 2
Subnet mask:
255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Figure 5: Internet Protocol

4. Change the PC IP settings to the following: **192.168.1.2**
5. Set the subnet mask address to: **255.255.255.0**
6. Click **OK**, and the Local Area Connection Properties box is displayed again. Click **OK** and close the Network and Dial up Connections panel.

2.7.4 Configuring the PC for Serial Connection

Note: The following procedure is only required if you have a null modem cable and do not intend to use the crossover ethernet cable to connect to the ADPRO FastTx. (Refer to *Null-modem Cable Wiring* on page 15 for wiring details for the null modem cable).

The serial comms (COM) port on the PC must be configured for operation as follows:

1. Select **Control Panel** / **System** / **Hardware** tab.

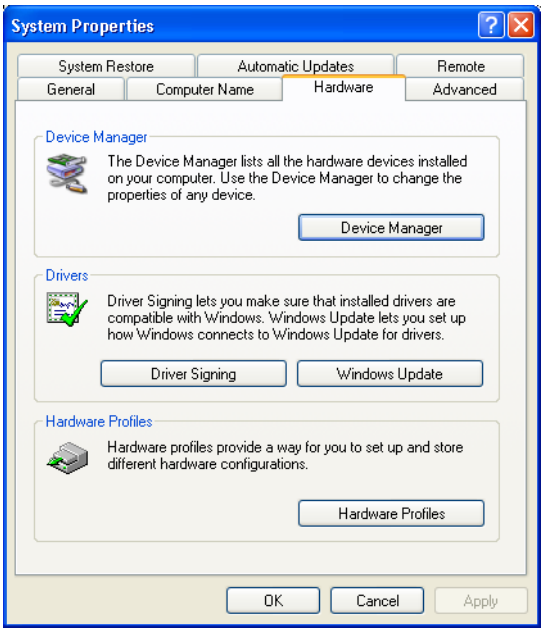
System Properties
System Restore
Automatic Updates
Remote
General
Computer Name
Hardware
Advanced
Device Manager
The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.
Device Manager
Drivers
Driver Signing lets you make sure that installed drivers are compatible with Windows. Windows Update lets you set up how Windows connects to Windows Update for drivers.
Driver Signing
Windows Update
Hardware Profiles
Hardware profiles provide a way for you to set up and store different hardware configurations.
Hardware Profiles
OK
Cancel
Apply

Figure 6: System Properties

2. Select **Device Manager** and expand the **Ports (COM & LPT)** selection.

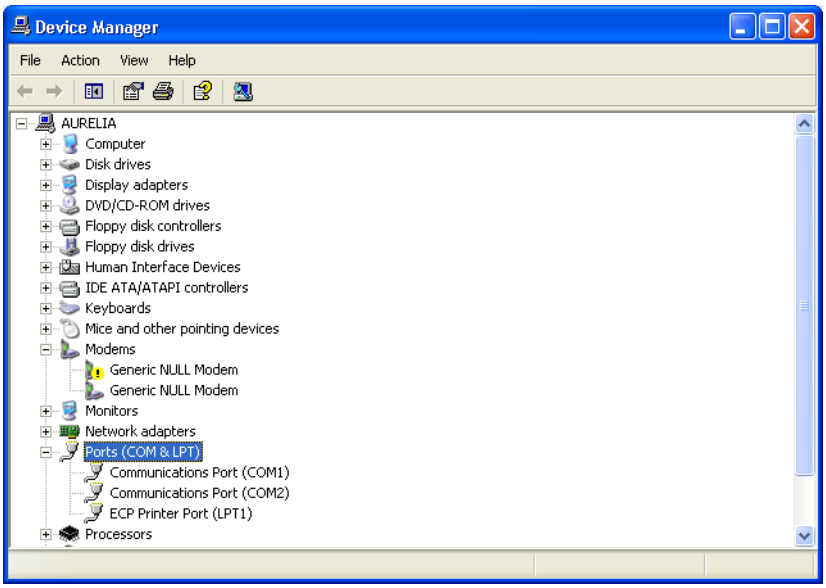

Figure 7: Device Manager

3. Double click on the required communications port (**COM1** or **COM2**).

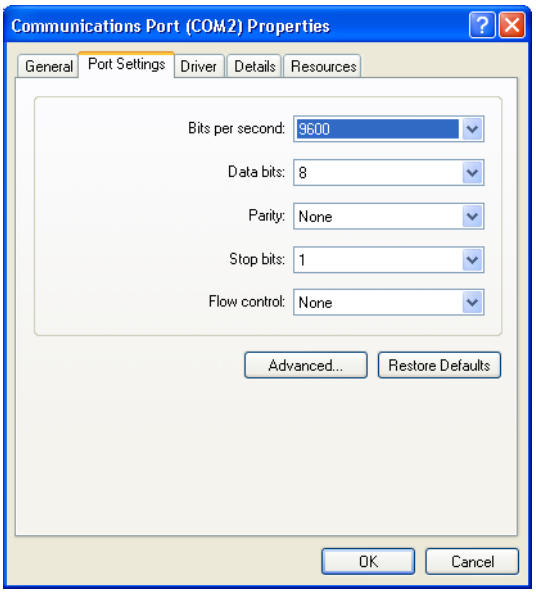

Figure 8: COM Port Settings

4. Select the **Port Settings** tab and enter the following settings:
   - Bits per second = 115,200 bps
   - Data bits = 8
   - Parity = none
   - Stop bits = 1
   - Flow control = hardware
5. Ensure the ADPRO FastTx is free-standing with no obstruction to airflow (cooling fan at rear).
6. Connect the cable between the ADPRO FastTx COMMS 2 port and the PC's serial port.

Installing the Null Modem Driver

If you are using the Null-Modem cable connection method to connect to the ADPRO FastTx, you must install the Null-Modem driver in Windows. This step is NOT necessary if a Null-Modem driver has already been installed on the PC, or if you are using an Ethernet connection to ADPRO FastTx.

To install this driver:

1. Insert the ADPRO ADPRO VideoCentral Lite CD in the CDROM Drive.
2. If necessary enter an Area code in the Dialing Rules tab.
3. Click the Windows **Start** button and select: **Control Panel** / **Phone and Modem Options**.

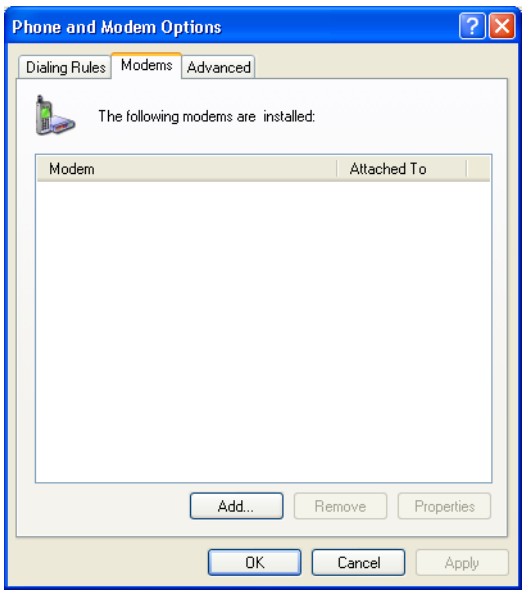

Figure 9: Phone and Modem Options

4. Click on the **Modems** tab and select the **Add** button.

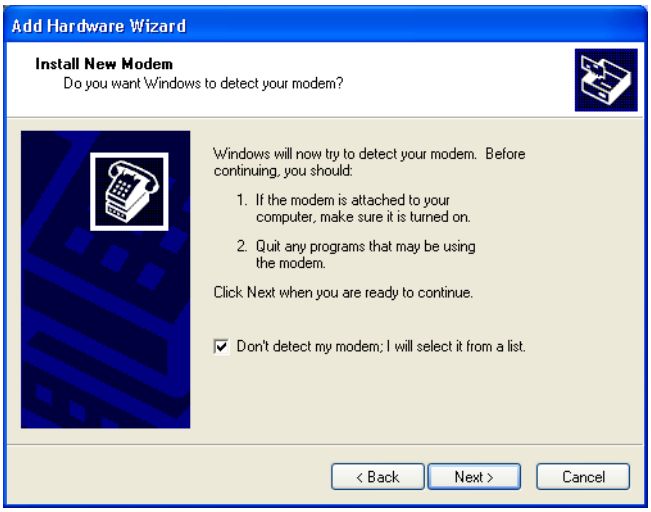
Add Hardware Wizard
Install New Modem
Do you want Windows to detect your modem?
Windows will now try to detect your modem. Before continuing, you should:
1. If the modem is attached to your computer, make sure it is turned on.
2. Quit any programs that may be using the modem.
Click Next when you are ready to continue.
Don't detect my modem; I will select it from a list.
< Back
Next >
Cancel

Figure 10: Install New Modem

5. When the Install New Modem dialog box is displayed, click the **Don't detect my modem, I will select it from a list** checkbox, then click **Next**.

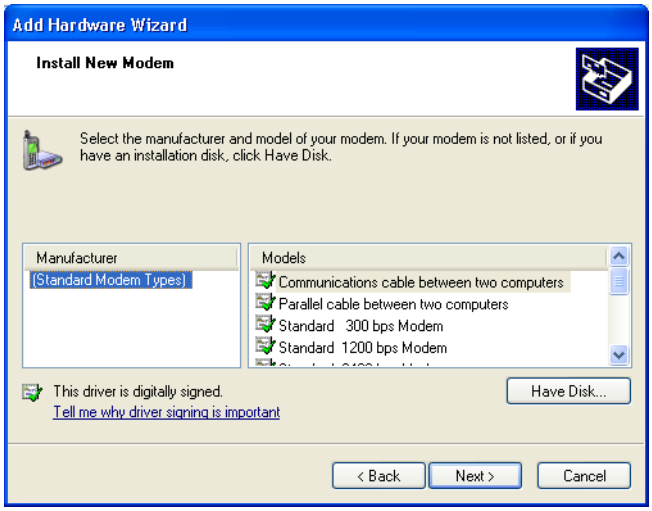
Add Hardware Wizard
Install New Modem
Select the manufacturer and model of your modem. If your modem is not listed, or if you have an installation disk, click Have Disk.
Manufacturer
(Standard Modem Types)
Models
Communications cable between two computers
Parallel cable between two computers
Standard 300 bps Modem
Standard 1200 bps Modem
This driver is digitally signed.
Tell me why driver signing is important
Have Disk...
< Back
Next >
Cancel

Figure 11: Select Modem Driver from Disk

6. Click the **Have Disk** button. The Install From Disk screen is displayed.

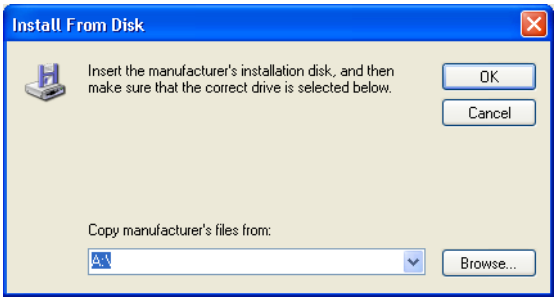

Figure 12: Install from Disk

7. Select the **Browse** button, navigate to the CD drive and select **Drivers and Libraries** / **Null Modem Driver / mdmcisc2.inf** (note that the CDROM should still be in the drive).
8. Select **Open** and click **OK**.

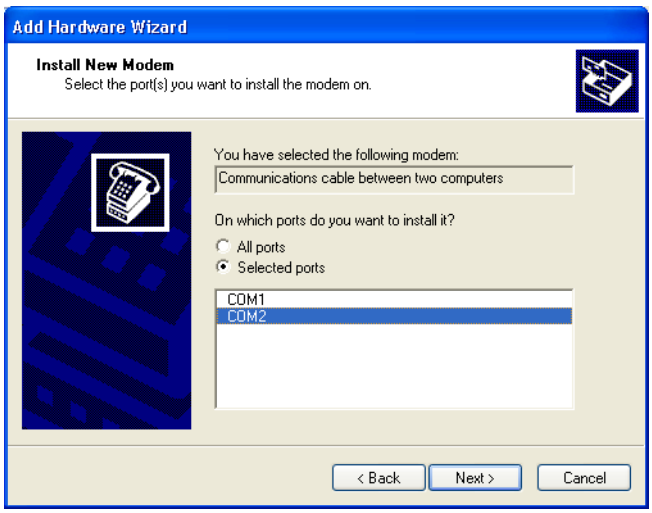

Figure 13: Select Modem COM Port

9. Click **Next** and select either **COM1** or **COM2** (but not both).
10. Click **Next**, the following screen will display.

Hardware Installation
The software you are installing for this hardware:
Generic NULL Modem
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Figure 14: Installation Warning

11. Select **Continue Anyway** and click **Finish** when the software has installed.

Reboot the PC to ensure the serial comms and modem driver changes become active.

Note: The Null Modem driver will only allow outgoing calls from ADPRO VideoCentral, preventing it from being used to receive events.

Null-modem Cable Wiring

Should it be necessary to use a null-modem cable that is longer than that supplied with the ADPRO FastTx, use the diagram shown to make a longer cable.

Note: RS232 cables should never extend past 15m (33 feet).

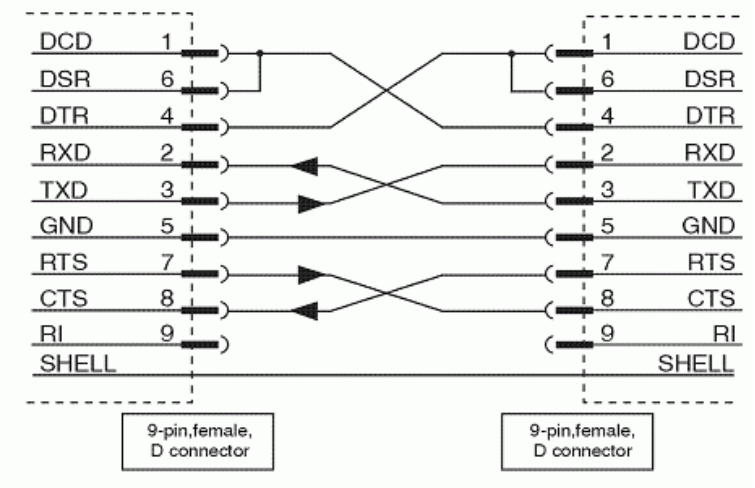

Figure 15: Null-Modem Wiring

2.7.5 Installing ADPRO VideoCentral Lite Software

1. Start the PC and insert the CD into the appropriate CD drive. If the CD does not autorun, select the **AutorunEx** application from the CD drive from Windows Explorer. The following screen will appear.

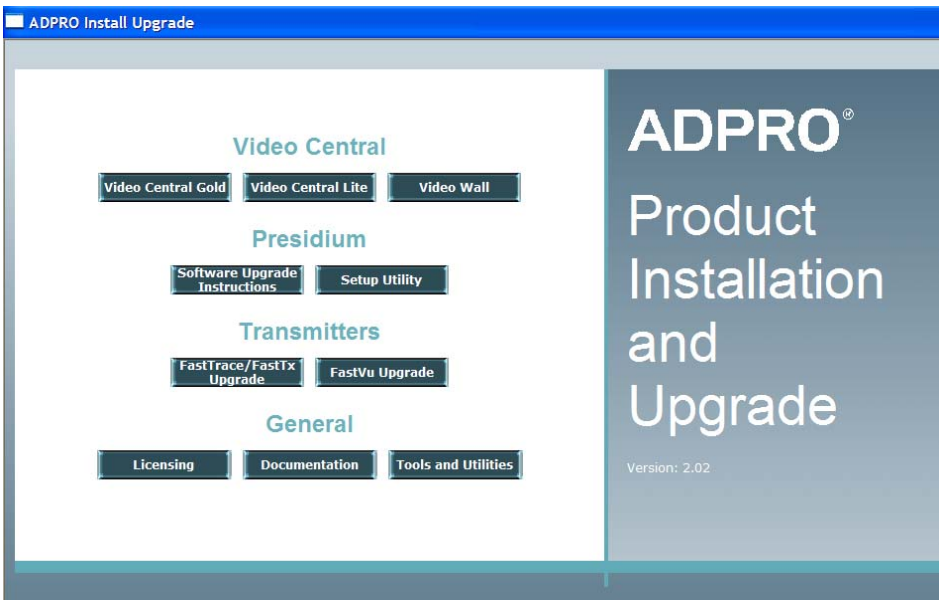

Figure 16: Installation Screen

2. Select **ADPRO VideoCentral Lite**, the following window is displayed.

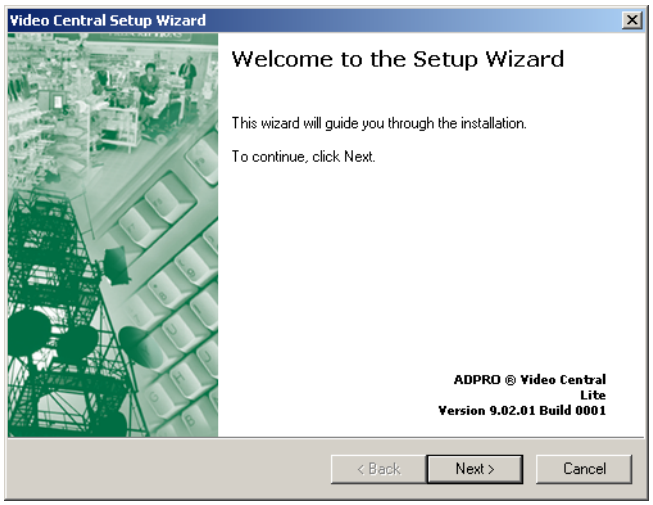
Video Central Setup Wizard
Welcome to the Setup Wizard
This wizard will guide you through the installation.
To continue, click Next.
ADPRO ® Video Central Lite
Version 9.02.01 Build 0001
< Back
Next >
Cancel

Figure 17: Setup Wizard Introduction Screen

3. After checking that the version number that you are upgrading to is correct, click **Next**. At any point during the installation, you can go back any number of steps by clicking **Back**.
4. Check that the location shown is where you wish to install ADPRO VideoCentral. If it is correct, click **Next**, otherwise browse and select the location.

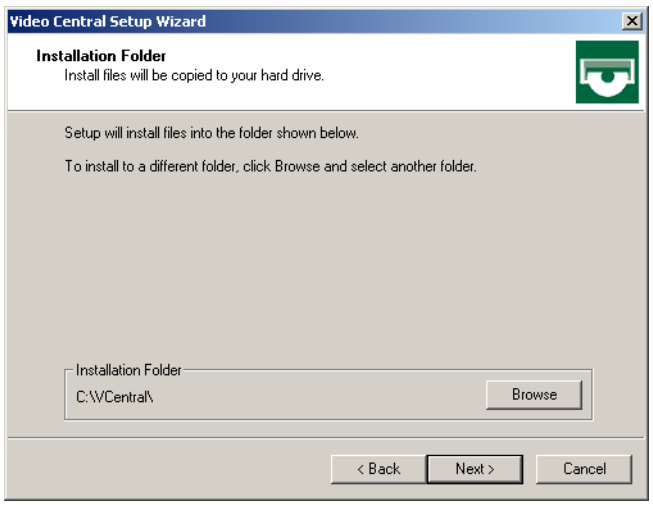
Video Central Setup Wizard
Installation Folder
Install files will be copied to your hard drive.
Setup will install files into the folder shown below.
To install to a different folder, click Browse and select another folder.
Installation Folder
C:\VCentral\
Browse
< Back
Next >
Cancel

Figure 18: Installation Location

Note: On the next screen you **MUST** select the **Yes** option for receiving alarms otherwise you will not be able to configure the ADPRO FastTx unit from ADPRO VideoCentral Lite.

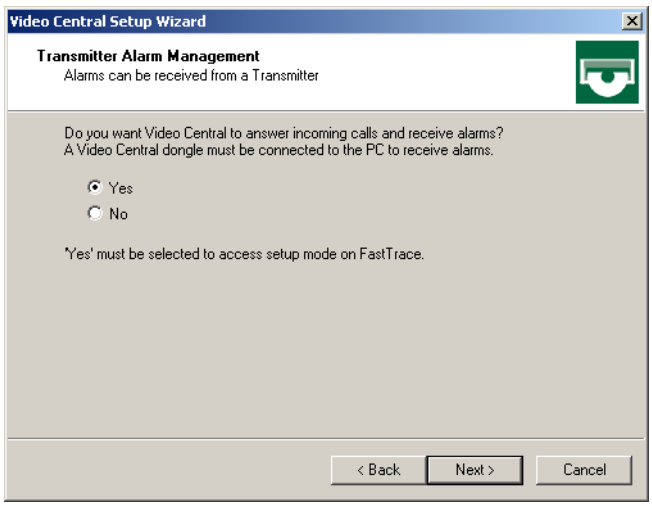
Video Central Setup Wizard
Transmitter Alarm Management
Alarms can be received from a Transmitter
Do you want Video Central to answer incoming calls and receive alarms?
A Video Central dongle must be connected to the PC to receive alarms.
Yes
No
'Yes' must be selected to access setup mode on FastTrace.
< Back
Next >
Cancel

Figure 19: Transmitter Alarm Management

5. Select **Yes** and click **Next**.

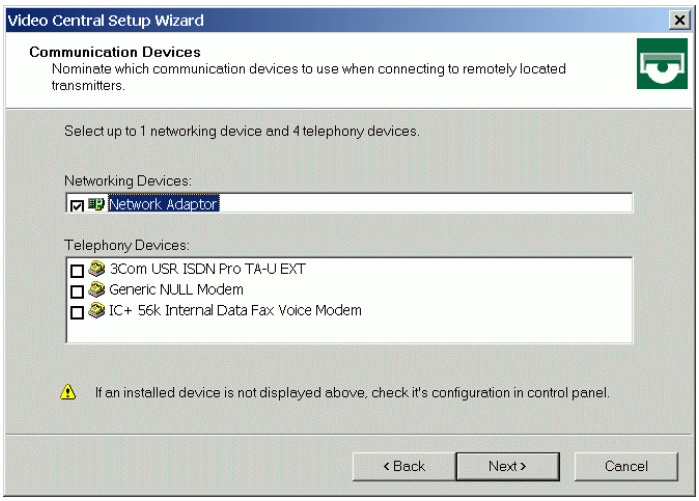
Video Central Setup Wizard
Communication Devices
Nominate which communication devices to use when connecting to remotely located transmitters.
Select up to 1 networking device and 4 telephony devices.
Networking Devices:
Network Adaptor
Telephony Devices:
3Com USR ISDN Pro TA-U EXT
Generic NULL Modem
IC+ 56k Internal Data Fax Voice Modem
If an installed device is not displayed above, check it's configuration in control panel.
< Back
Next >
Cancel

Figure 20: Communication Devices

6. Select the checkbox next to the device you are using to enable ADPRO VideoCentral Lite to connect to the ADPRO FastTx unit (**Network Adaptor** for an ethernet connection, **Generic NULL Modem** for a serial connection). Click **Next**.

Note: If you wish to change the option, you must first DESELECT the current device.

7. If Generic NULL Modem was selected in the previous screen, accept the default selection of **PSTN** on the Connection Types screen and the default values on the Phone Line Checking screen.
8. Click **Finish**, then **Exit** and the process is complete.

The screen below is displayed when the installation is complete:

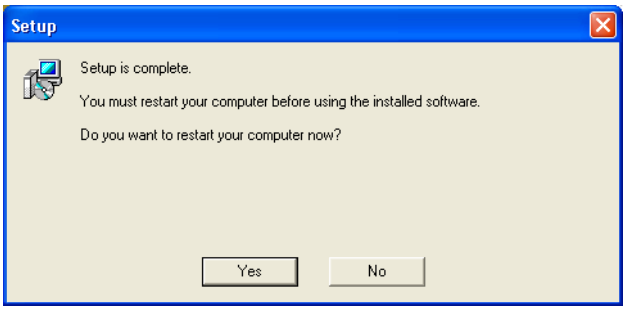
Setup
Setup is complete.
You must restart your computer before using the installed software.
Do you want to restart your computer now?
Yes
No

Figure 21: Setup Complete

Note: The PC must be restarted before ADPRO VideoCentral Lite can be used.

2.7.6 Starting ADPRO VideoCentral Lite for the First Time

1. Start the ADPRO VideoCentral Lite program by double-clicking the ADPRO VideoCentral icon on the Windows desktop.

If you do not have a ADPRO VideoCentral dongle (Hardware Protection Key) attached to the PC, the following screen will appear.

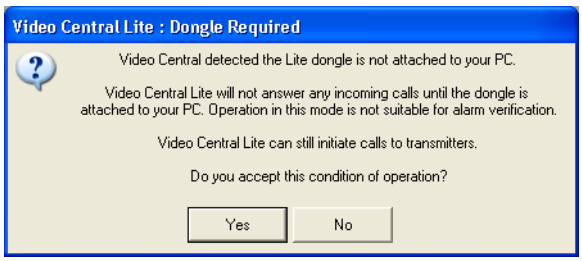
Video Central Lite : Dongle Required
Video Central detected the Lite dongle is not attached to your PC.
Video Central Lite will not answer any incoming calls until the dongle is attached to your PC. Operation in this mode is not suitable for alarm verification.
Video Central Lite can still initiate calls to transmitters.
Do you accept this condition of operation?
Yes
No

Figure 22: Dongle Required

It is not necessary to have this device attached to perform the setup functions.

2. Click on the **Yes** button to accept this condition and ADPRO VideoCentral Lite user interface will be displayed.

To help users with the first time setup of a ADPRO FastTx, a number of default settings are used in the ADPRO ADPRO VideoCentral Lite software that must match the default factory settings found in a new ADPRO FastTx unit. The default settings stored in the ADPRO VideoCentral Lite can be found by using the following menu:

Database / **Administration** / **Configure Sites** / **FastTrace default site**.

3. To check the defaults, select the **FastTrace default site** entry and click **Edit**. The Site Configuration details are shown with the default values, as follows:

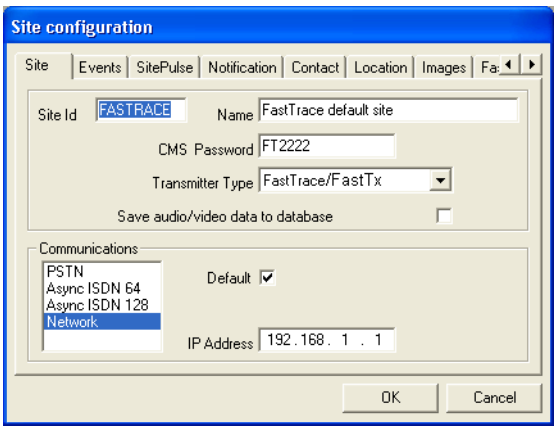

Figure 23: Default Ethernet Site Configuration

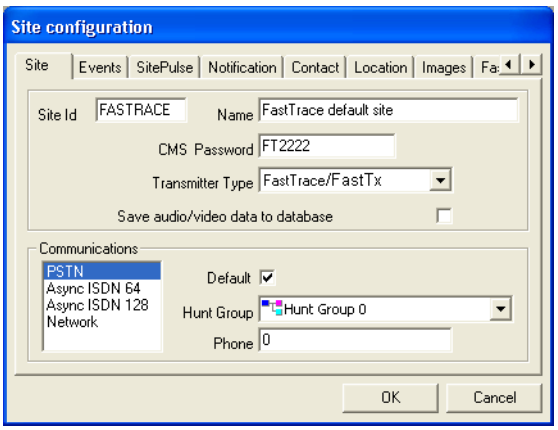

Figure 24: Default Serial Site Configuration

2.8 ADPRO FastTx Configuration

1. Before powering the ADPRO FastTx unit on, check that the factory DIP-Switch settings are correct (refer to Table 7 on page 38 for more details).

   The location of the DIP-Switch is on the rear of the ADPRO FastTx unit at the bottom, underneath the camera connections and next to the monitor connector.

2. Set the DIP-Switch 10 to the appropriate video standard for the region:
   - (ON - NTSC, OFF - PAL).
3. Ensure the airflow vents into the side of the ADPRO FastTx unit are not blocked.
4. Connect the crossover Ethernet cable between the ADPRO FastTx Ethernet port and the PC's Ethernet port or the null modem cable between the Comm2 port and the PC's serial comms port.
5. Once DIP-Switch settings are verified and all cables are connected, plug in the mains power cable.

2.8.1 Powering Up the ADPRO FastTx

The green Power and the red Status LEDs on the front panel are lit as soon as power is applied to the unit.

The ADPRO FastTx is supplied with a universal input power supply which operates from 100-240V AC, 50-60Hz. There are no switches to change based upon your particular mains power voltage or frequency.

If the green LED fails to illuminate check that there is power available from the socket into which the ADPRO FastTx is connected.

The ADPRO FastTx will then automatically perform a series of self-test routines which check the microprocessor circuits. When power is first applied to the ADPRO FastTx unit, the red LED on the front of the unit will be on. After approximately 60 seconds, the red LED should start switching on, then off, every two seconds. Once the unit successfully completes the integrity check, the red LED will switch off, and remain off.

If at any time during operation, the red LED switches on and stays on, this signifies a fault with the unit and technical support is required.

If the red LED does not switch off and remain off, do the following:

1. Unplug all of the connectors except the power and re-power the unit.
2. If the red LED extinguishes, plug each connector back in and check that the red LED remains off.
3. If the red LED does not extinguish after 10 minutes, please contact ADPRO technical support.

If the red LED continues to flash for an extended period, this signifies that corruption has been found with the database and the unit is attempting to correct the fault.

2.9 Connecting to the ADPRO FastTx for the First Time

1. Connect the PC to the ADPRO FastTx unit, via the ethernet or serial cable.
2. Power the ADPRO FastTx up.
3. Wait for the ADPRO FastTx to complete its start-up checks. The red status light will initially be ON, then will start flashing, then go OFF once the checks are complete. This can take up to two or three minutes from power on.
4. Start ADPRO VideoCentral Lite from the icon on the desktop, if not already running.

5. From within ADPRO VideoCentral Lite click the **Connect to Site** button.

6. Select the site named **FastTx default site** and then select the connectors type in the **Connect Via** list. Click **OK**. You should see the Connection Status screen followed by a screen confirming connection.

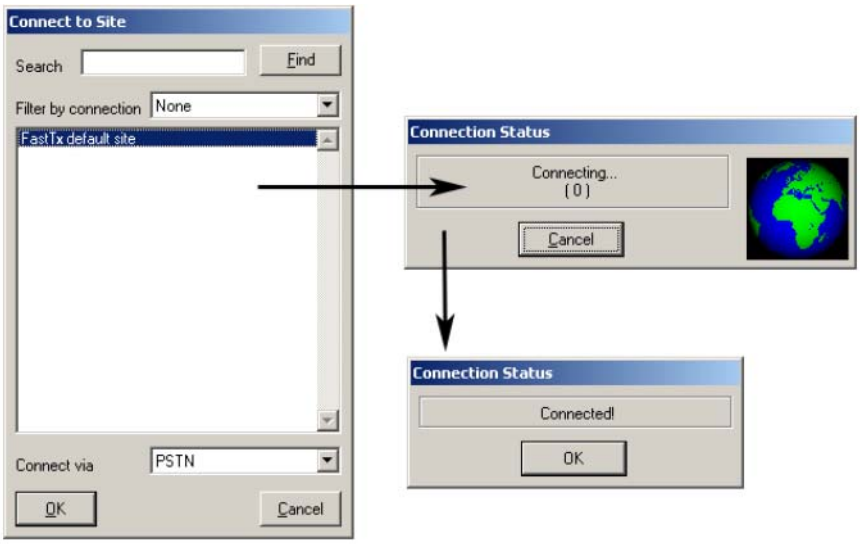

Figure 25: Connect To Site

The ADPRO VideoCentral User Interface screen will be displayed and if a camera has been connected, there should be video displayed, otherwise a standard blue screen is shown.

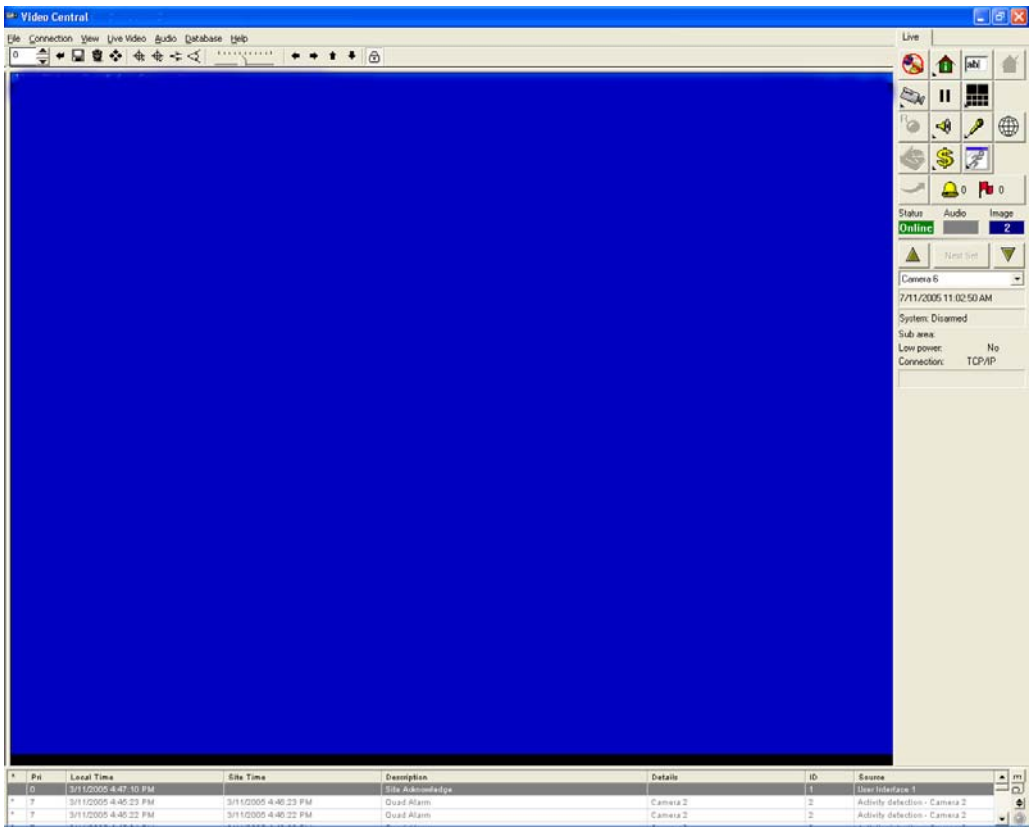

Figure 26: ADPRO VideoCentral User Interface

7. Go to the **Connection** menu and click the **Installer Menu** option (or click the **Installer Menu** button on the **Site Actions** flyout).

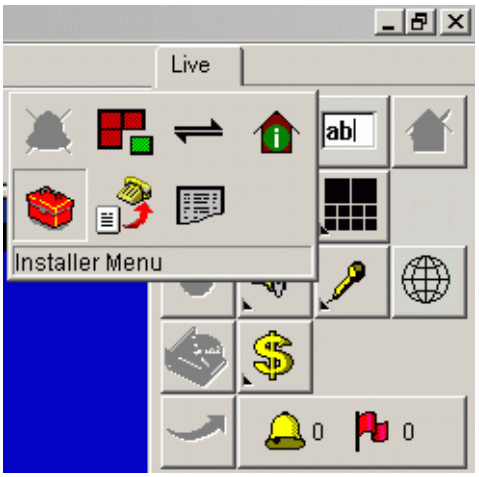

Figure 27: Installer Menu Button

The Setup files will be downloaded from the ADPRO FastTx unit.

Note: The first time the settings are accessed, it may take some time to download the settings as the setup program is also being downloaded from the ADPRO FastTx unit.

For a new ADPRO FastTx, the first time a user accesses the Installer Menu, a message will appear asking the user to accept the Factory Default settings. Click **Yes** to this question.

Once the Factory Default Settings have been accepted, subsequent requests to enter the Installer Menu will not display this message.

The ADPRO FastTx User Settings screen is displayed.

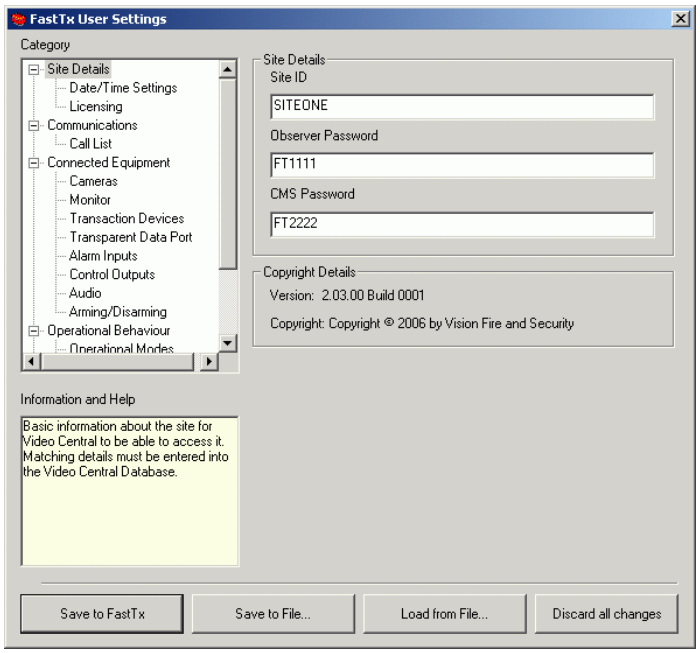

Figure 28: ADPRO FastTx User Settings

Setup parameters and configuration options for the ADPRO FastTx can now be modified.

Refer to *Programming ADPRO FastTx* on page 51 for details of the settings which must be defined to use the ADPRO FastTx in an operational environment.

8. Define all required ADPRO FastTx user settings and select the **Save to FastTx** button.

   The modified files will be uploaded to the ADPRO FastTx for permanent storage and the site will be disconnected.

Note: The setup program will not allow invalid parameters to be saved. For example, should you receive a message asking for a correct Ethernet Gateway address to be entered, either enter the correct value or delete the invalid entry.

2.10 Adding a New Site

To connect to the site again, ADPRO VideoCentral must be configured with a new site, which has the Ethernet or Serial Communications properties identical to those entered at the **Site Details** and **Communications** screens of the user settings:

1. Select **Database** / **Administration** / **Configure Sites** and select **New**.

The **Site Configuration** screen is displayed:

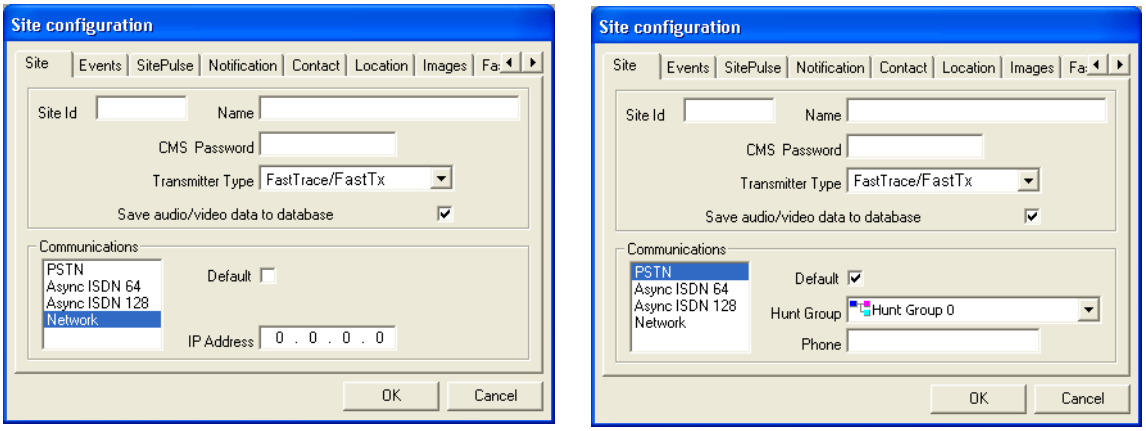

Figure 29: Configure a New Site

2. Enter the following site details:
   •**Site Id**: 9 characters (max)
   •**CMS Password**: 8 characters (max)
   •**Communications**: Network or PSTN
3. If Network is selected, enter a valid IP address for the ADPRO FastTx
4. Click **OK**. The configure Site dialog box is shown again. Click **Close**. The System Administration options are then shown. Click **Exit**.

If a Network connection is being used, the PC must now have its IP Address changed to be on the same subnet mask as the modified IP Address of the ADPRO FastTx (but with a different IP address). Refer to *Configuring the PC for Ethernet Connection* on page 9 for details of how to perform this.

2.11 Testing the ADPRO FastTx Installation

1. Reconnect to the site by selecting the **Connect to site** button, highlighting the new site and press **OK**.
2. Test the operation of all connected cameras by selecting each camera in turn from the drop down list on the user interface.

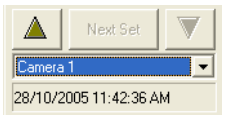

Figure 30: Camera List

3. While still connected to the site, test the operation of all programmed alarms by triggering them in turn and ensuring that the appropriate alert is sent to ADPRO VideoCentral.
4. Once operation is confirmed onsite, test the connection and operation at the CMS (if required). Connect to the CMS by triggering an alarm at the site, and ensure that the CMS can initiate connection to the site.

2.12 Notes and Troubleshooting Tips

- Ensure that matching details entered at the ADPRO VideoCentral AND at the site equipment are IDENTICAL.
- If using a serial port connection, check the port configuration in the PC is set for the correct speed and data configuration to match the modem type used.
- If using a network connection, ensure the TCP/IP address and subnet mask are correct.

2.12.1 Setting the Date and Time

The ADPRO FastTx uses a stable internal clock that is based on UTC (Coordinated Universal Time). Date and time settings of the unit operate in a way that is similar to a PC and a 'Time Zone' value is provided in the **Date** / **Time Settings** option of the **Connection** menu / **Installer Menu** option (refer to *Date/Time Settings* on page 56).

To ensure correct operation, the Time Zone value should be configured prior to any date or time changes being made.

2.12.2 Front Panel LED

When power is first applied to the ADPRO FastTx unit, the red LED on the front of the unit will be on. After approximately 60 seconds, the red LED should start switching on, then off, every two seconds. Once the unit successfully completes the integrity check, the red LED will switch off, and remain off.

If at any time during operation, the red LED switches on and stays on, this signifies a fault with the unit and technical support is required.

2.13 ADPRO FastTx Connection Details Lost

If for any reason, the operational Site ID, password or network address for a ADPRO FastTx is lost, use the following procedure to override the communication settings and restore this information.

1. Set the ADPRO FastTx's DIP Switch 7 (on the rear panel) to the 'ON' position.
2. Power cycle the unit. This will override to the following settings:
   - Site ID: FASTRACE
   - Password: FT2222
   - Network Address: 192.168.1.1
   - Subnet Mask: 255.255.255.0
3. Connect a crossover network cable or the null modem (serial) cable between the unit and a PC running ADPRO VideoCentral.
4. There should be a ADPRO FastTx Default Site in **Database** / **Administration** / **Site Details** with details that match the Site Details as described in point 2 above.
5. Modify the ADPRO VideoCentral settings (**Database** / **Administration** / **Site Details**) for the connection type as follows:
   - (NETWORK connection) - Set 'Connection Type' = Network and 'IP Address' = 192.168.1.1

OR

- (SERIAL connection) Set 'Connection Type' = PSTN and 'Phone' = 0

6. Connect to Site (FASTRACE) using the default Password (FT2222).
7. Go to the **Connection** menu and select the **Installer Menu** option to display the ADPRO FastTx's User Settings menu.
8. Change Site Details to the new Site ID, Password and Network Address values.
9. Save all changes when exiting the User Settings menu.
10. Reset Switch 7 to the OFF position and power cycle the unit.

The ADPRO FastTx will now operate with the new Site ID, Password and Network Address.

2.14 Firewall Configuration

If the ADPRO FastTx unit is connected via a firewall, the following table describes the destination port allocation for the ADPRO VideoCentral PC and ADPRO FastTx unit. Source ports are randomly chosen. The control of connections should be done using IP addresses and destination ports.

Table 1: Firewall Ports

Destination Ports on ADPRO VideoCentral	Destination Ports on ADPRO FastTx
UDP 15000-15200	UDP 15000-15005
TCP 15001-15007	TCP Any port

3 ADPRO FastTx Connectors

All external connections to the ADPRO FastTx chassis are made via the rear panel, refer to the following figure:

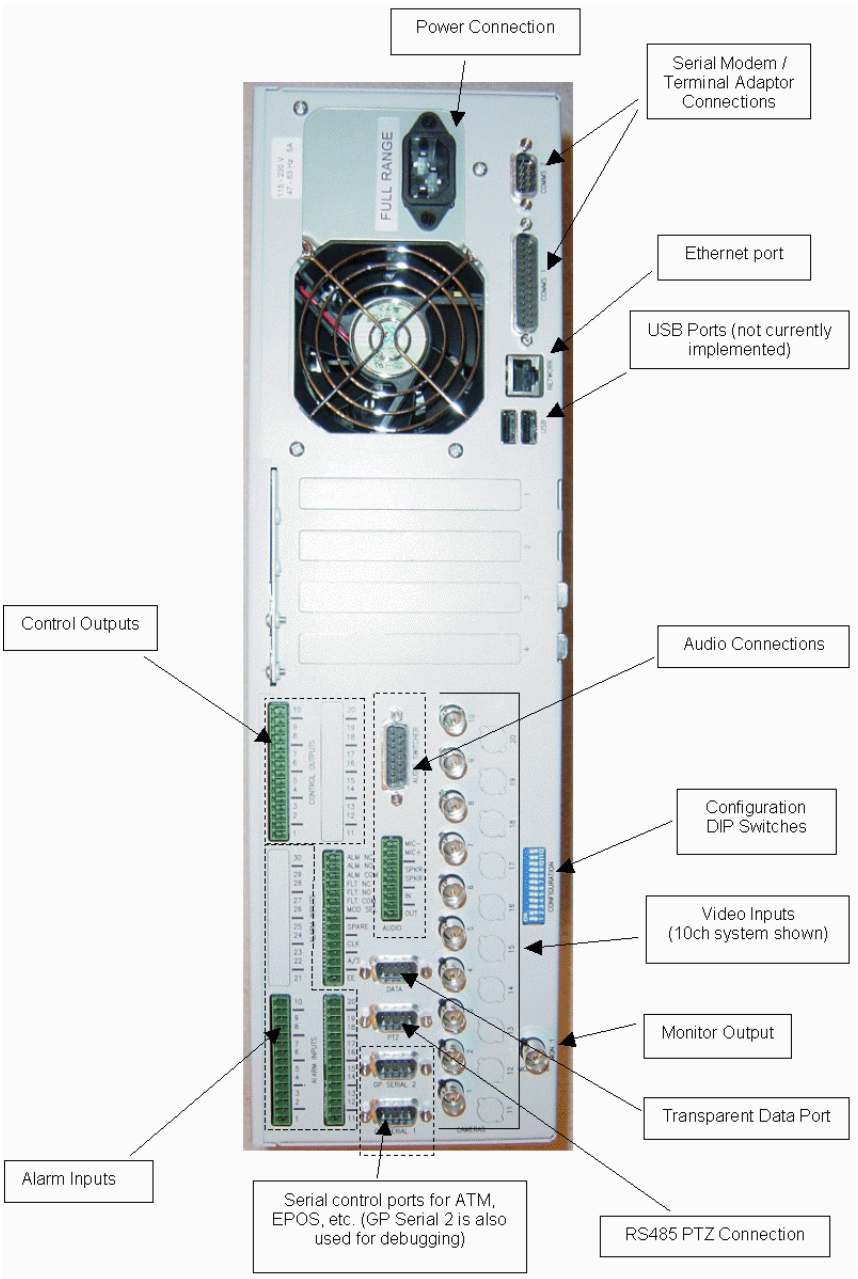
Power Connection
Serial Modem / Terminal Adaptor Connections
Ethernet port
USB Ports (not currently implemented)
Control Outputs
Audio Connections
Configuration DIP Switches
Video Inputs (10ch system shown)
Monitor Output
Transparent Data Port
Alarm Inputs
Serial control ports for ATM, EPOS, etc. (GP Serial 2 is also used for debugging)
RS485 PTZ Connection

Figure 31: ADPRO FastTx Connections

3.1 Power Connection

The ADPRO FastTx is designed for 100-240 VAC 50-60 Hz operation. Ensure mains supplies are stable and are not subject to frequency changes, voltage spikes etc. The use of mains suppression units or even UPS (Uninterrupted Power Supply) systems is recommended to ensure stable voltages.

Maximum input current is 5 amps during power up and 1 amp during normal operation. Typical unit power consumption when fully optioned is 100 W.

3.2 Connecting Communication Devices

ADPRO FastTx provides a number of interfaces for connecting communications devices to allow remote access to the system. These interfaces are available via the **COMMS 1**, **COMMS 2** and **NETWORK** connectors on the rear panel.

In general, there are three primary types of communication links available; dial-up, dedicated or network. Both dial-up and dedicated links can be either analogue (PSTN) or digital (ISDN), depending of the type of connections available at the site.

There are a variety of different networks that are available, and with the appropriate interface the ADPRO FastTx can work over the majority of them.

3.2.1 COMMS 1

COMMS 1 is a serial communication port and is used to connect to modems and terminal adaptors to support PSTN and ISDN links at data rates up to 230 kps. The 25-pin D connector pins are wired as shown below (solder side).

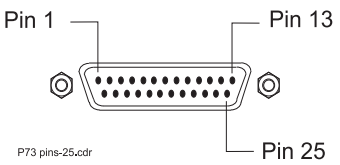

Figure 32: Comm1 Pin Numbers

Table 2: Comm Port 1 Connection

V.24 Name	Pin	Direction	V.24 Description
SGND	1	-	Shield
TXD	2	O	Transmit data
RXD	3	I	Receive data
RTS	4	O	Request to send
CTS	5	I	Clear to send
DSR	6	I	Data Set Ready
GND	7	-	Signal ground
DCD	8	I	Carrier detect
	9	I	
	10	I	
	11	O	
	12	I	
	13	I	
	14	O	
SCT	15	I	DCE transmit clock
	16	I	
RXC	17	I	DCE receive clock
	18	I	
	19	O	
DTR	20	O	Data terminal ready
RL	21	O	Remote loopback
RI	22	I	Ring Indicator
	23	I	
TXC	24	O	DTE Transmit Clock
	25	|	

3.2.2 COMMS 2

COMMS 2 is used to connect to modems and terminal adaptors to support PSTN and ISDN links at data rates up to 230 kbps. COMMS 2 can also be used to access the ADPRO FastTx setup menu and to upgrade the software when connected to a PC or laptop computer via a null-modem cable link. The 9-pin D connector pins are shown below.

Table 3: Comm Port 2 Connection

Name	Pin	Direction	Description
DCD	1	I	Carrier Detect
RXD	2	I	Receive Data
TXD	3	O	Transmit Data
DTR	4	O	Data Terminal Ready
GND	5	-	Ground
DSR	6	I	Data Set Ready
RTS	7	O	Request to Send
CTS	8	I	Clear to Send
RI	9	I	Ring Indicator

3.2.3 Connecting to a Modem or TA

Communication devices with a V.24 port are connected to the ADPRO FastTx using the modem cable supplied with the modem or terminal adaptor. Either Comms 1 or Comms 2 may be used and the ADPRO FastTx can be set up with two communications devices, allowing simultaneous connections and / or a back-up communications path.

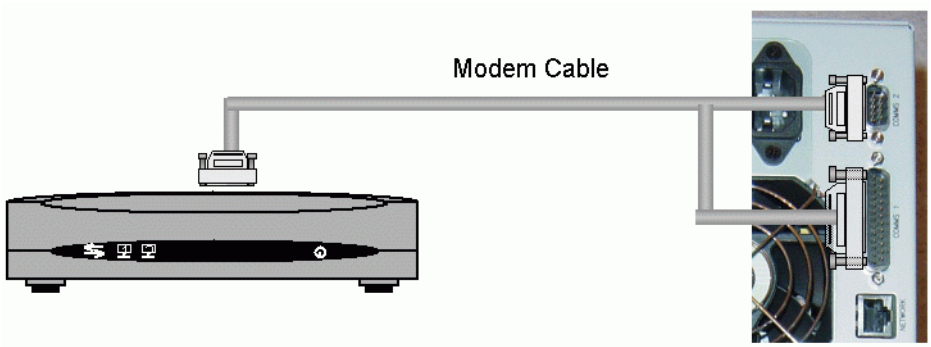

Figure 33: Modem Connection

3.2.4 Network (Ethernet) Connection

ADPRO FastTx has a built in Ethernet connection port to allow communications via a conventional 'computer' network.

- *NETWORK* - (RJ-45 - Female) - Ethernet 10/100baseT

Caution: To ensure correct network connectivity, please ensure ADPRO FastTx is connected to the network before being powered on. This enables the ADPRO FastTx unit to detect the correct network speed (10BaseT or 100BaseT).

The physical connection is a half-duplex, 10/100Base-T (100Mb) port, although the maximum throughput of the ADPRO FastTx is around 5Mb/sec.

ADPRO FastTx is designed for use via a Cat. 5 cable infrastructure. The Cat. 5 standards define cabling specifications and physical presentations. In short, Cat. 5 defines the use of 4 pairs (8 wires) presented on an RJ45 connection. Cat. 5 cable must be used for operation on a 100baseT wiring system. The physical connections are:

Table 4: Ethernet Connection

Pin No.	Function/Signal
1	Transmit +ve
2	Transmit -ve
3	Receiver +ve
4	Not Used
5	Not Used
6	Receive -ve
7	Not Used
8	Not Used

Note: ALWAYS consult with the IT or Network Manager for the network BEFORE physically connecting ADPRO FastTx to the network.

A network address is required for correct operation over a network. Both the ADPRO FastTx and the PC running the ADPRO VideoCentral software must have a unique TCP/IP address (referred to as the IP address). A number of IP parameters may need to be entered to correctly identify a ADPRO FastTx on a network.

Refer to *Ethernet Properties* on page 59 for details to configure the Ethernet Connection.

3.3 Audio

Audio functionality is provided via two connectors on the ADPRO FastTx. Audio options are only available if the system has a sound card enabled. Audio to/from a remote site using ADPRO VideoCentral is half-duplex, meaning that audio is only allowable in one direction at a time.

3.3.1 Audio Switch Port

The Audio Switch port provides a number of functions on the ADPRO FastTx, these are:

- An audio output and an audio input connection
- A general relay
- Serial outputs
- Access Secure input

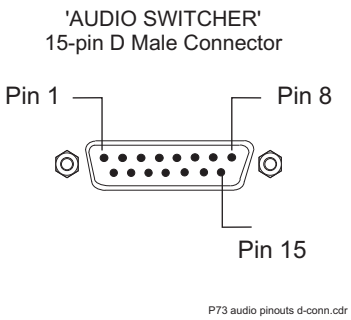

Figure 34: Audio D-Connector Pinouts

Table 5: Audio Switcher Connections

Pin Function	Signal	Pin	Specifications
Serial Link for Channel Number selection	Serial Clock	14	Open drain output 32 V maximum 100 mA maximum On impedance <15 ohm
	Serial Data	7	
	Serial Strobe	15	
	not used	8	
Audio Signals	Audio Out (+)	1	Output impedance >600 ohm Nominal output level = 315 mVrms
	Audio In (+)	2	Input impedance >6K ohm Nominal level = 10 mVrms to 400 mVrms
	Audio Common	9	Audio Signal common
Spare	not used	13	
Access/Secure	Acc/Sec Input	5	
Spare	not used	6	
General Alarm Relay	Common	4	Contact Rating 1 A at 32 VDC
	N/O	12	
	N/C	11	
Ground	Ground	10	
N/C		3	

3.3.2 Audio Screw Terminal Connector

The audio screw terminals may be used for connection of certain audio devices, such as microphones and low power speakers. Connections and ratings of the connector block are:

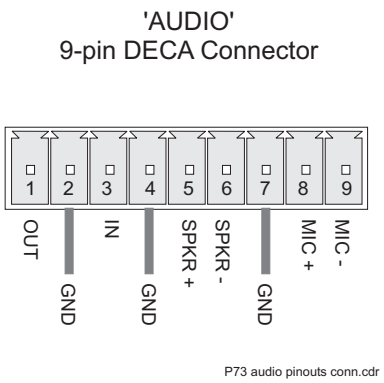

Figure 35: Audio Connector Pinouts

Table 6: Audio Screw Terminal Connector

Pin Function	Signal	Pin	Specifications
Line Level Audio	Output	1	Unbalanced, impedance 600 ohm Nominal voltage level = 315 mVrms
	Ground	2	0 V
	Input	3	Unbalanced, impedance >6 K ohm Nominal level = 10 mVrms to 400 mVrms
	Ground	4	
Local Speaker	Speaker (+) Speaker (-)	5 6	Balanced, impedance = 8 ohm Nominal output power = 1 W Total harmonic distortion < 5%
	Ground	7	
Local Microphone	Microphone (+) Microphone (-)	8 9	Differential impedance > 3 K ohm Single ended impedance > 6 K ohm Nominal signal level is 100 uV rms to 10 mV rms

3.3.3 Audio Configuration

The audio output is normally connected to the input of an amplifier capable of driving a speaker. With a suitable amplifier, multiple speakers may be driven to give a global announcement. The output level is approximately equal to the input level provided at the receiver.

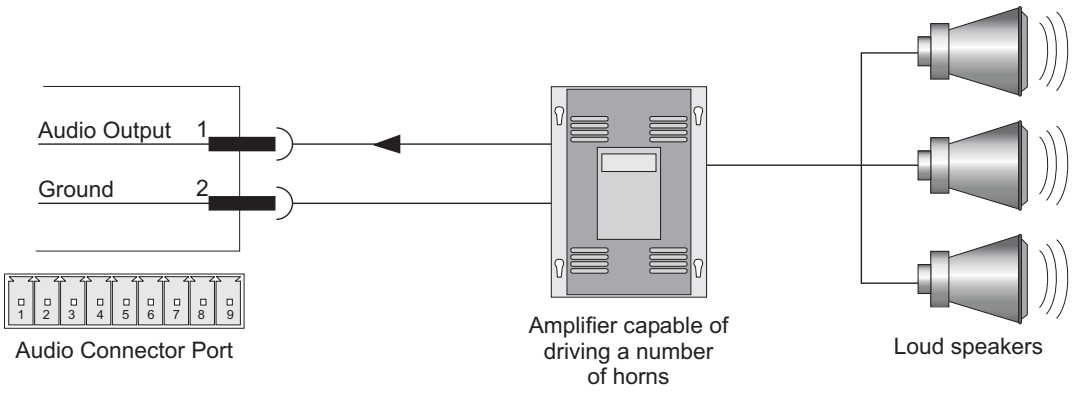

Figure 36: Audio Configuration with Amplifier

The audio input is normally connected to a microphone with a suitable pre-amplifier stage that is capable of providing 1 V peak to peak audio.

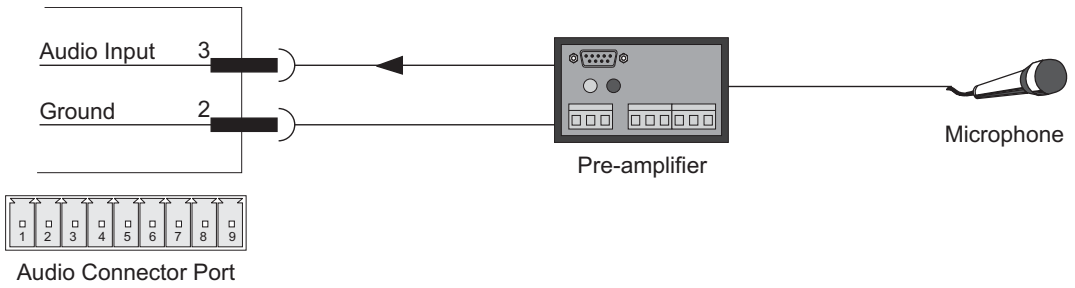

Figure 37: Microphone Connection

By using both the audio input and output, intercom systems and handsets can also be connected to the ADPRO FastTx. When used in conjunction with the alarm inputs this allows the ADPRO FastTx to be used for help points and door/gate entry systems.

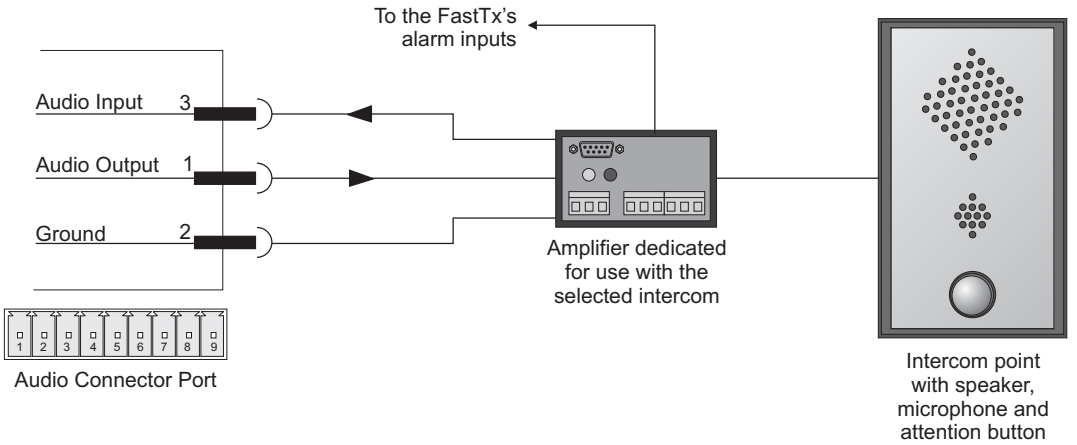
To the FastTx's alarm inputs
Audio Input 3
Audio Output 1
Ground 2
1 2 3 4 5 6 7 8 9
Audio Connector Port
Amplifier dedicated for use with the selected intercom
Intercom point with speaker, microphone and attention button

Figure 38: ADPRO FastTx with Intercom

The ADPRO FastTx can send audio simultaneously with the video on PSTN, ISDN lines and over networks. This enables the central station to 'listen and talk' to activities occurring on the monitored site.

3.3.4 Zoned Audio

The ADPRO FastTx has one audio input and output. If zoned audio is required, that is the ability to talk out of individual speakers rather than making a global announcement, or if it is required to listen to multiple microphones, a VM22A can be used. This also means a mixture of intercoms and loud speakers can be used.

The VM22A audio switcher has ten audio inputs and outputs (one for each video input) and will route the appropriate audio input and output to the ADPRO FastTx, depending upon which camera the monitoring station is currently viewing.

Additional VM22As can be connected to the first VM22A to expand the audio channels to 20 (the same number as number of cameras on a ADPRO FastTx AFTX-20).

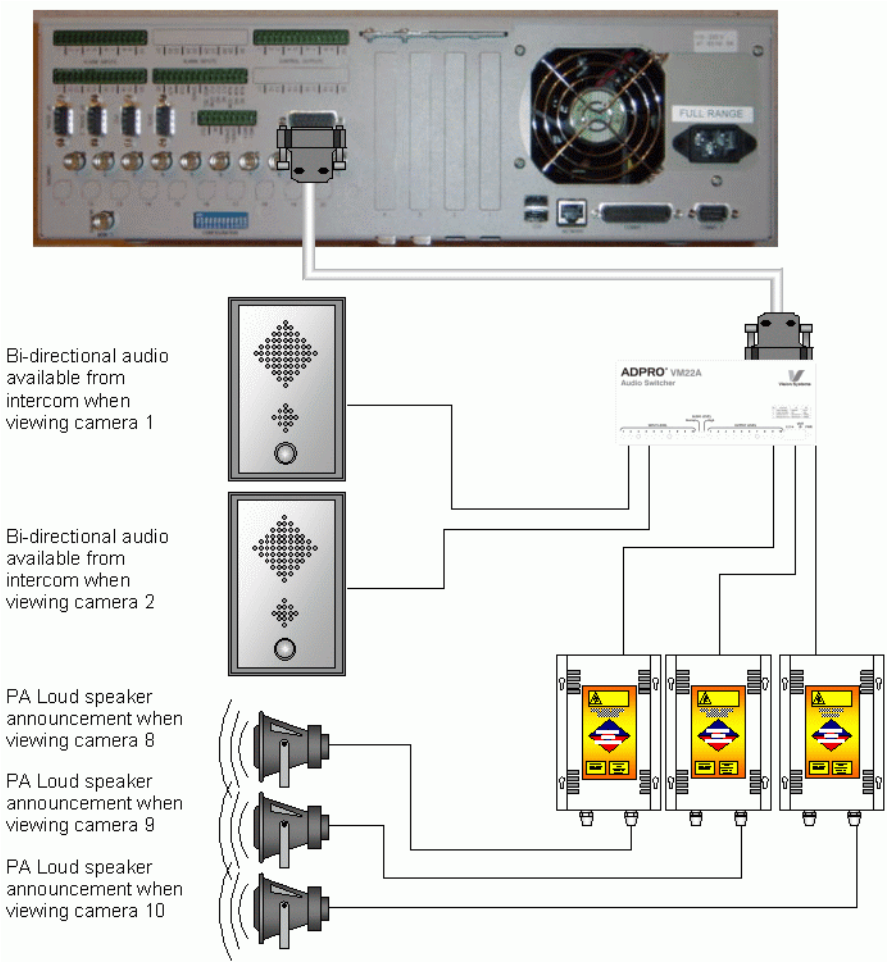
Bi-directional audio available from intercom when viewing camera 1
Bi-directional audio available from intercom when viewing camera 2
PA Loud speaker announcement when viewing camera 8
PA Loud speaker announcement when viewing camera 9
PA Loud speaker announcement when viewing camera 10
ADPRO VM22A
Audio Switcher
FULL RANGE

Figure 39: Zoned Audio Configuration

3.4 Video Input Connections

Depending on the model, up to 20 video sources can be connected via the female BNC sockets. The sources should generate a 1.0-volt peak to peak composite colour or black and white video signal when terminated with a 75-ohm load. A combination of colour and black and white cameras can be used.

To ensure high picture quality, each video input must be terminated either at the chassis itself or by other external equipment. The **Camera Terminated** option in the **Connected Equipment** / **Cameras** screen (via the **Connection** menu / **Installer Menu** option) allows individual channels to be terminated with 75-ohm or left un-terminated, for example, when the video signal is looped out to other equipment such as a video monitor or video matrix switcher (refer to *Camera Settings* on page 72). The external equipment must provide the channel termination. The default menu option is **Camera Terminated**.

Caution: Video terminations are OFF when power is removed.
The video terminators on the ADPRO FastTx will disconnect when power to the unit is removed. If the video inputs are also connected to other equipment, the ADPRO FastTx should NOT be used to provide a 75-ohm termination point.

Caution: Installations in Lightning Prone Areas
In lightning prone areas, in-line coaxial lightning arresters should be used on the video cables. The arresters should be installed at the cable entry of the building that houses the ADPRO FastTx. Cameras should also have suitable lightning protection rods installed as close to them as possible. The use of fibre optics to provide electrical isolation on the video signals is strongly recommended in high-risk areas.

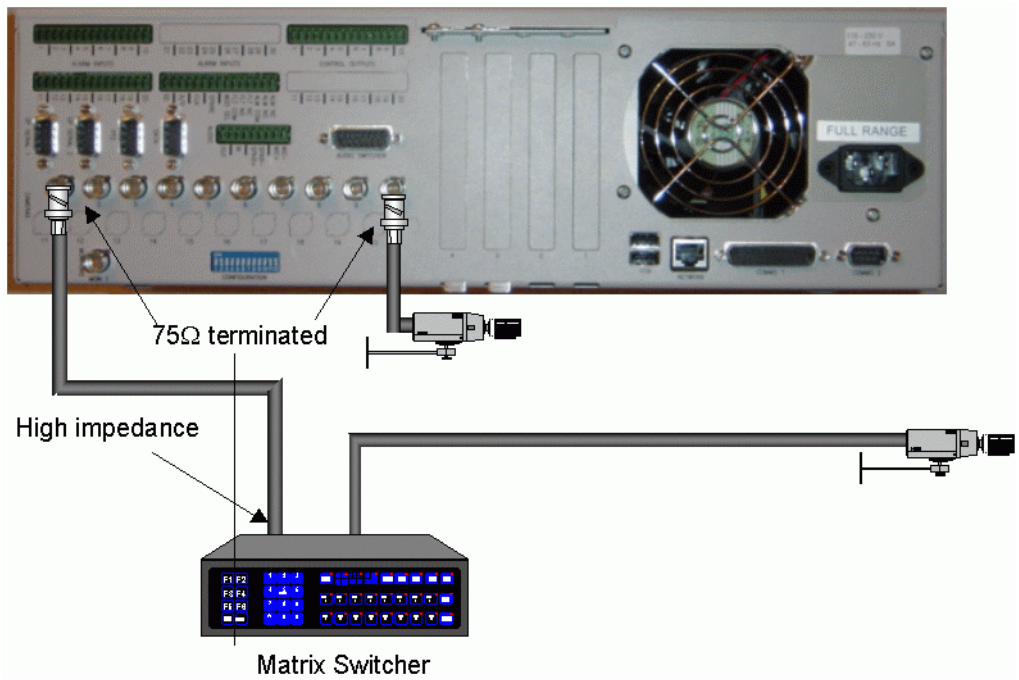

Figure 40: Video Configuration

3.4.1 Video Input Requirements

To ensure high quality images, the ADPRO FastTx must synchronise correctly to the incoming video signal for the selected video standard. For synchronisation to occur the following conditions must be met:

- the synchronisation pulse amplitude at each video input must be within the range of 0.2 volts to 0.4 volts,
- the peak video amplitude with reference to the black level (ie. not including the synchronisation pulses) at each video input must be within the range of 0.5 volt to 1.0 volt, and
- for colour cameras, the minimum colour burst level at each video input must be at least 100 mV.

If the video level is low, cable compensators or video line drivers should be installed at the video source. They should be adjusted to boost the video signal to within the voltage limits given above.

Maximum Camera Input Cable Length

The maximum cable length that can be used from a camera before cable compensators are required is dictated by the desired quality of the video picture. *Generally, the shorter the cable between the camera and the ADPRO FastTx the better the video picture quality.*

Use the following information as a guide for RG59 type coaxial cable (75 ohm nominal impedance):

- In a monochrome system, depending on the resolution required, the cable length should be restricted to 500 metres (1600 feet) before cable compensators are installed.

Signal degradation due to the coaxial cables characteristics has a far greater effect on colour video. In a colour system, the coaxial cable length should be limited to 250 metres (800 feet) before cable compensators are installed. Again the length is dependent on the required picture quality.

3.5 Video Output

The video output of the ADPRO FastTx is normally connected to a colour or monochrome monitor capable of receiving composite video signal to the required TV standard (PAL/CCIR or NTSC/RS170). The composite video output is designed to drive a 75ohm load.

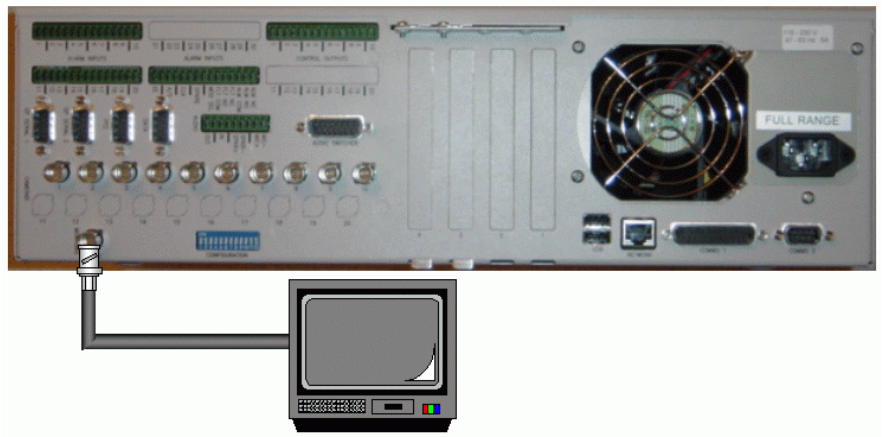

Figure 41: Video Output Configuration

The video output cannot be controlled under normal day to day operation and will provide a sequence of images as defined in **Monitor Settings**, refer to *Monitor Settings* on page 78. This may be used in environments such as entrances to buildings etc, where CCTV is being used, to act as a deterrent.

3.6 Configuration Switches

Some of the ADPRO FastTx settings and functions are set by the configuration switches on the rear panel.

Settings shown in bold are the factory default positions.

Table 7: DIP Switch Configuration

Switch		Function
1	On	
	Off	**Factory Set**
2	**On**	**Factory Set**
	Off	
3	On	
	Off	**Factory Set**
4	On	
	Off	**Factory Set**
5	On	RS422 Configuration for PTZ port
	Off	**RS485 Configuration for PTZ port**
6	On	Impounded
	Off	**Normal Operating Position**
7	On	Default override setting for direct connection **Note:** Refer to *ADPRO FastTx Connection Details Lost* on page 25 for an explanation of this switch functionality.
	Off	**Normal Operating Position**
8	On	PTZ RS485 Termination On
	Off	**PTZ RS485 Termination Off**
9	On	GP Serial 2 is enabled for EPOS/ATM interfacing
	Off	**Factory Set**
10	On	NTSC Video Standard
	Off	**PAL Video Standard**
11	N/A	Leave both switches 11 and 12 in the **ON** position
12	N/A	

After changing any DIP switches the ADPRO FastTx must be repowered for the changes to take effect.

Note: The impound switch (DIP switch 6) must be left in the normal operating position (Off). Switching the unit to impounded will prevent alarm images from being sent.

3.7 Alarm Inputs

Unlike other equipment, which typically has statically assigned alarm input to video relationships (i.e. alarm input 1 always related to video channel 1, alarm input 2 always related to video channel 2, etc), ADPRO FastTx can be programmed so that any one or group of alarm inputs can trigger any one or group of cameras. This allows much more flexibility within system designs and configurations.

The ADPRO FastTx Model AFTX-20 has thirty external alarm inputs, all with selectable tamper detection configurations (Model AFTX-10 has twenty). The camera setup options can be programmed to trigger an alarm on detection of either a closed contact or an open contact condition on an alarm input. Alarm inputs are normally connected to alarm sensors such as door switches, passive infrared detectors, microwave detectors, vibration sensors, electric field detectors, etc.

In addition to this, alarm inputs can also be programmed as being one of six states to allow for tamper detection on circuits. Alarm types can be:

- **Normally Open -** No End Of Line (NEOL) Resistor
- **Normally Closed -** NEOL
- **Normally Open -** Single End Of Line (SEOL) Resistor
- **Normally Closed -** SEOL
- **Normally Open -** Dual End Of Line (DEOL) Resistor
- **Normally Closed -** Dual End Of Line Resistor

Alarm inputs to the ADPRO FastTx are presented on screw terminals on the rear of the unit and each circuit can be individually assigned as one of the above six types (i.e. a combination may be used, you do not have to program them all the same way).

Alarm inputs are relative to ground (chassis) of the ADPRO FastTx.

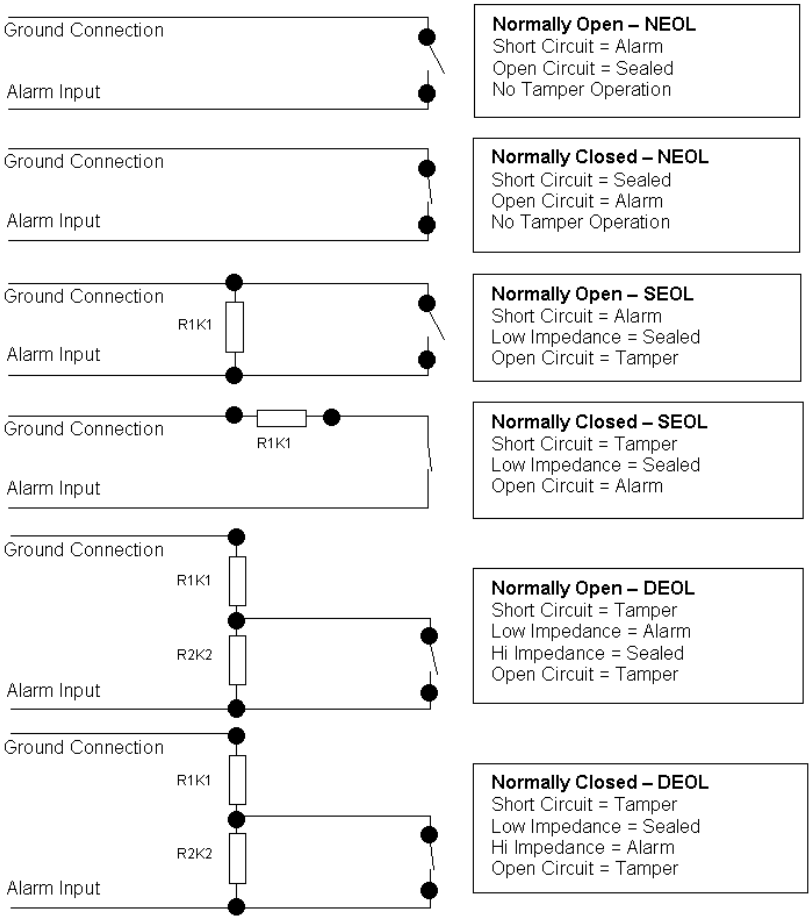

Figure 42: Alarm Input Configuration

3.7.1 Driving the Alarm Inputs

For an alarm input to be recognised, the input device must hold a changed state for a period of 100 ms.

- For a valid closed contact, the total resistance, including wiring resistance, must be below 150 ohms.
- For an open contact to be valid the resistance presented at the alarm input must be above 2,500 ohms.

The alarm inputs and numbering for all channels is shown below. Note that the alarm input ground connections are not isolated from the chassis ground.

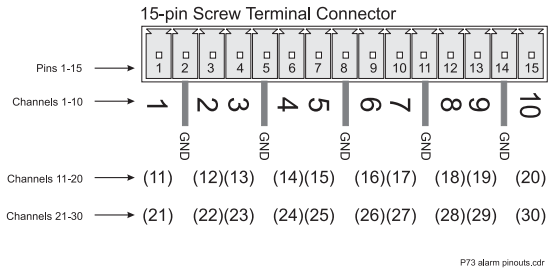

Figure 43: Alarm Connector Pinouts

Wire connections from the alarm switches are made by using the screw terminal contact strips supplied with the ADPRO FastTx. For ease of installation, the screw terminal blocks slide over the connector pins when the wiring is complete.

Caution: DO NOT attempt to solder directly onto the connector pins, as this may cause heat damage to the connector housing or to the interface PCB.

The setup options for alarm inputs are described with reference to the 'rest' or non-alarm position of a set of switch contacts:

- **Normally Open** - needs a closing alarm contact to activate an alarm
- **Normally Closed** - needs an opening alarm contact to activate an alarm
- **SEOL Normally Open** - Single End of Line termination with N/O contacts
- **SEOL Normally Closed** - Single End of Line termination with N/C contacts
- **DEOL Normally Open** - Dual End of Line termination with N/O contacts
- **DEOL Normally Closed** - Dual End of Line termination with N/C contacts

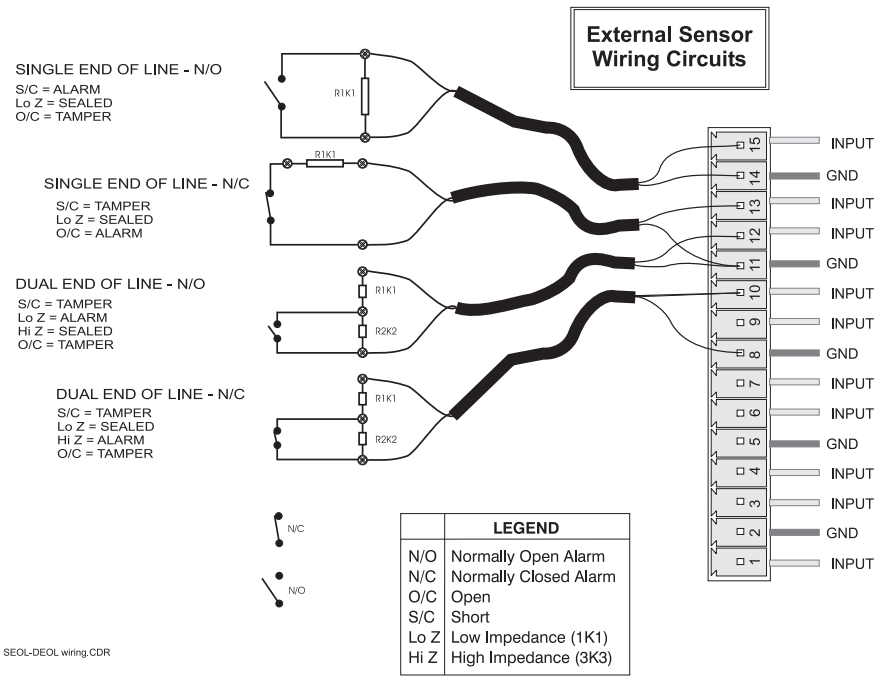

Figure 44: External Sensor Wiring Circuits

Please refer to *Specifications* on page 121 for voltage requirements and considerations.

3.8 Control Outputs

ADPRO FastTx transmitters have 10 or 20 Control Outputs that can be controlled by a remote operator using ADPRO VideoCentral. The devices can be used to control operation of lights, gates / doors and control equipment.

Note: Each Control Output can be set to be active (switch on) when an alarm event is active on the corresponding channel or to respond to remote control via ADPRO VideoCentral.

The devices should not be used to directly connect to third party equipment. They are primarily designed to drive relay contacts, which in turn control the third party equipment.

3.8.1 Connecting to the Control Outputs

Control Outputs are available via screw connection strips on the rear panel.

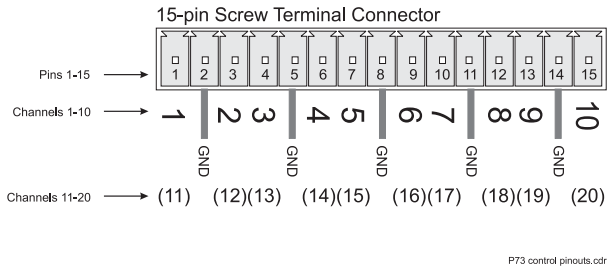
15-pin Screw Terminal Connector
Pins 1-15
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Channels 1-10
1 2 3 4 5 6 7 8 9 10
GND GND GND GND GND
Channels 11-20
(11) (12)(13) (14)(15) (16)(17) (18)(19) (20)
P73 control pinouts.cdr

Figure 45: Pinouts for Control Output Connectors

Caution: Exceeding the Control Output's maximum voltage or current rating (12 Vdc, 100 mA) will damage the ADPRO FastTx and invalidate the product warranty.
For high power/voltage equipment, suitable interface circuitry must be used between the Control Outputs and the equipment.

A typical output circuit for an external relay is shown below:

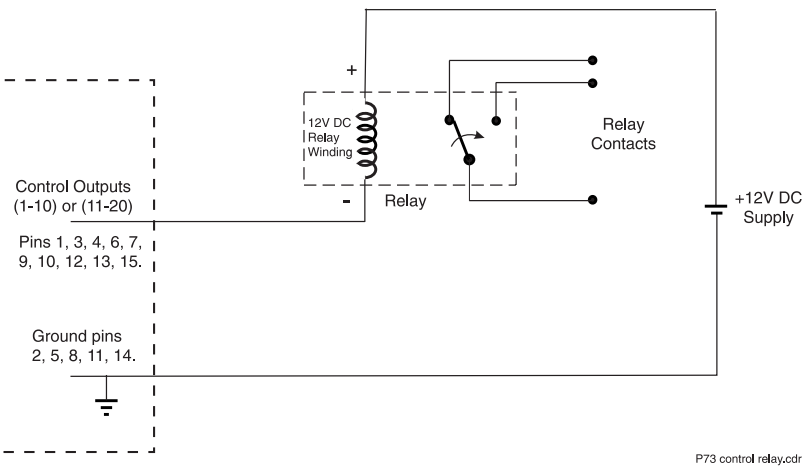

Figure 46: External Relay - Typical Output Circuit

3.9 PTZ Connection

Telemetry stations are used for the control of cameras with Pan/Tilt/Zoom (PTZ) hardware. They are connected to the ADPRO FastTx and can be controlled by commands issued via the PTZ port connector.

ADPRO FastTx supports a number of PTZ telemetry station models *provided* all of the PTZ units are the same model. Communications with the telemetry stations utilises RS485 'multi-drop' signalling via the 'PTZ' port on the rear of the chassis.

ADPRO FastTx supports 'Down the Coax' telemetry. A 'Down the Coax' telemetry module must be installed in the ADPRO FastTx if this functionality is required. Please contact your service centre if this option is required.

A single 9 way D connector is provided on the unit to support RS422 and RS485 connectivity to PTZ camera stations. The connectivity is shown below. To change between RS422 and RS485, use DIP switch 5 on the rear of the unit. To provide termination of the RS485 line use DIP switch 8 on the rear of the unit.

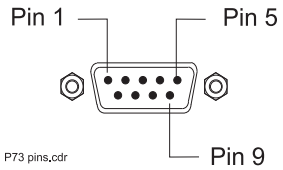

Figure 47: Pin Numbering of the PTZ Port

Table 8: PTZ Port Connections

Name	Pin	Description
TXD+	2	RS422(+) / RS485 (+)
TXD-	3	RS422 (-) / RS485 (-)
GND	5	Signal Ground
RXD+	6	RS422 (+)
RXD-	7	RS422 (-)

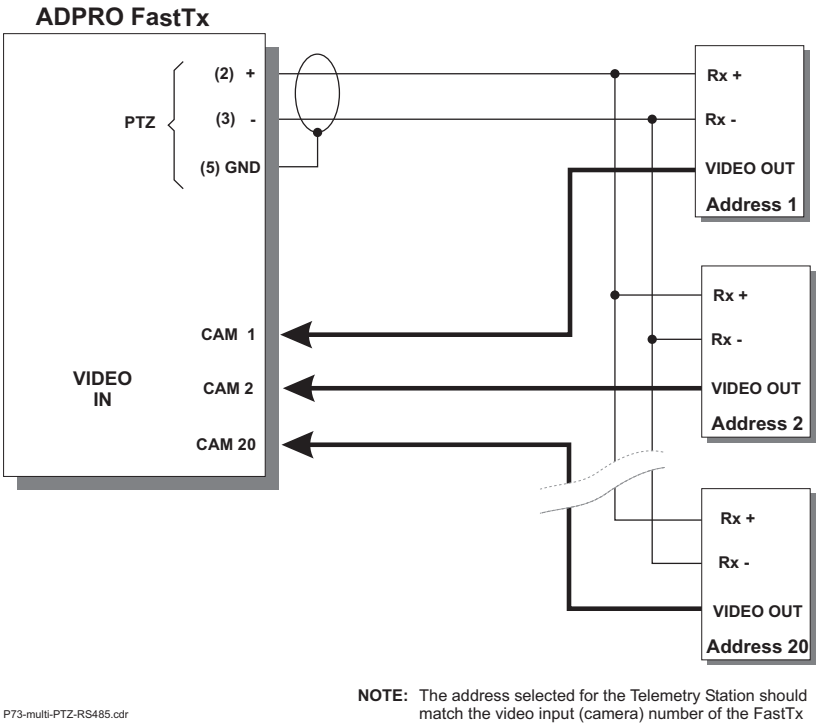

Figure 48: Typical RS485 Connection to Multiple Telemetry Stations

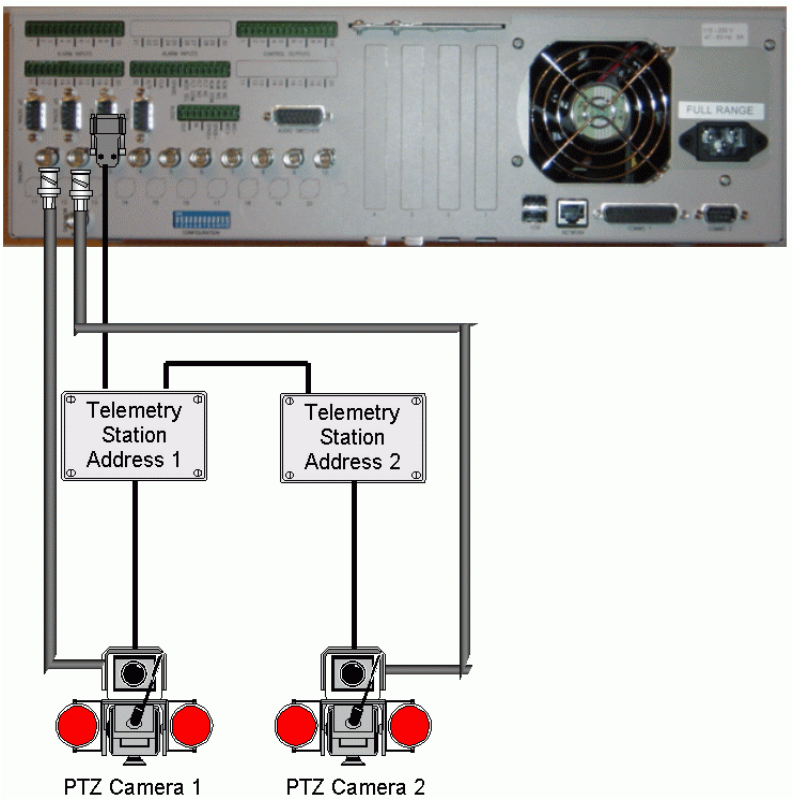

Figure 49: Typical PTZ Configuration

3.9.1 PTZ Port Setup

The following points are applicable to the PTZ port.

- Telemetry stations are connected via a 9-pin D connector, marked ‘PTZ’
- RS485 control links allow cable lengths of up to 1000 metres
- Up to 20 (identical) telemetry stations can be connected to one ADPRO FastTx

Use the following guidelines when connecting and setting up a telemetry station.

- The same brand and model of telemetry station must be used at a site if multiple units are to be used.
- Set the address of the telemetry station to match the camera input to which the PTZ camera is connected.
- Use shielded twisted pair cable for connection to the telemetry stations.
- Connect the Transmit positive (TXD+ pin#2), Transmit negative (TXD- pin#3) and Ground terminal (pin#5) of the ADPRO FastTx PTZ connector to the respective positive, negative and ground terminals of the telemetry station as shown below.

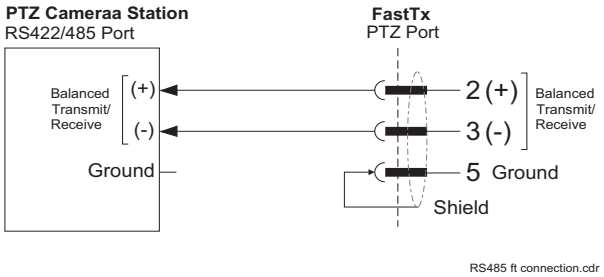

Figure 50: RS485 PTZ Port Connections to a Telemetry Station

- Make sure the last telemetry station connected to the link is terminated by a 120 ohm resistor.
- With reference to the telemetry station manual:
  - connect the pan/tilt head and the zoom lens, focus control and iris control (if applicable),
  - set the lens voltage, high speed PTZ settings, A/D converter for preset systems, homing preset after the last operation plus any other settings in the telemetry station, and
  - make sure the telemetry station data speed is set to the ADPRO recommended or default baud rate.

Telemetry station manufacturers provide a variety of models and features. ADPRO FastTx provides PTZ control ability for a number of popular models and where possible, supports the features provided by the manufacturer. Due to the number of models available on the commercial market, details of connection and use for individual models have been provided on the web site.

For information regarding connection and features of specific telemetry station, please refer to the technical documents section on the website at:

http://www.xtralis.com/adpro

or contact your nearest sales office for a copy.

3.10 General Purpose Serial Ports

Two general purpose serial ports are provided on the unit to support RS232 communication to third party equipment, for example transaction devices such as ATM / EPOS machines. The connectivity is shown below.

If using the GP Serial Port for ATM /EPOS, please ensure that configuration switch 9 is in the correct position prior to boot-up. Refer to *DIP Switch Configuration* **on page 38 for details.**

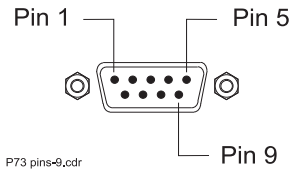

Figure 51: Pin Numbering of the Serial Port

Table 9: General Purpose Serial Port Connections

PIN	Signal	Description
1	DCD	Carrier Detect
2	RXD	Receive Data
3	TXD	Transmit Data
4	DTR	Data Terminal Ready
5	GND	Ground
6	DSR	Data Set Ready
7	RTS	Request to send
8	CTS	Clear to send
9	RI	Ring Indicator

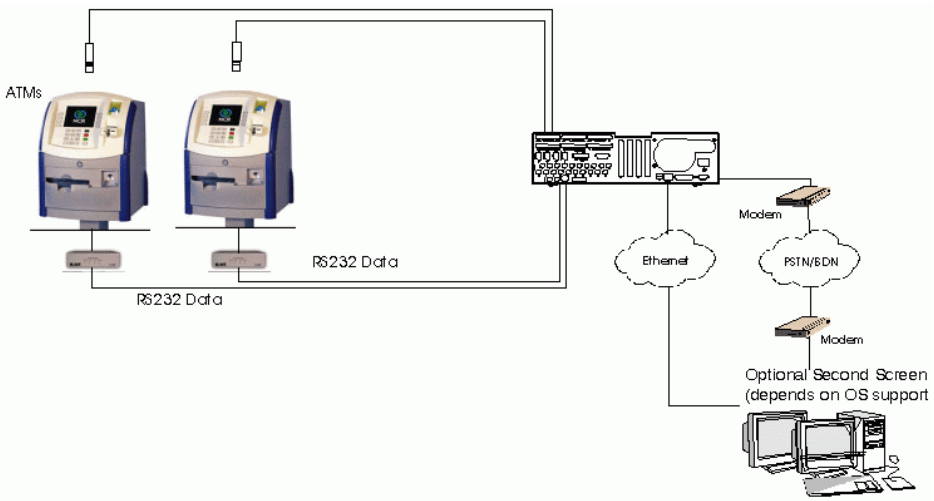

Figure 52: Typical Configuration with ATM/EPOS

3.11 Data Connection

A single 9 way D connector is provided on the unit for data connection, such as Transparent RS232. The transparent data capability provides the ability for the system to transfer data from a device connected to a serial port on the ADPRO VideoCentral PC to the data port on the ADPRO FastTx and vice versa. The data connection supports baud rates of 1200, 2400, 4800, 9600, 19200, 38400 and 57600.

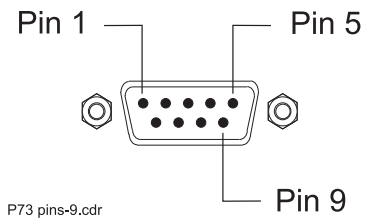

Figure 53: Pin Numbering of the Data Port

Table 10: Data Port Connections

PIN	Signal	Description
1	DCD	Carrier Detect
2	RXD	Receive Data
3	TXD	Transmit Data
4	DTR	Data Terminal Ready
5	GND	Signal Ground
6	DSR	Data Set Ready
7	RTS	Request to send
8	CTS	Clear to send
9	+V	Signal High

3.12 Connecting to the General I/O

General Inputs/Outputs are available via screw connection strips on the rear panel.

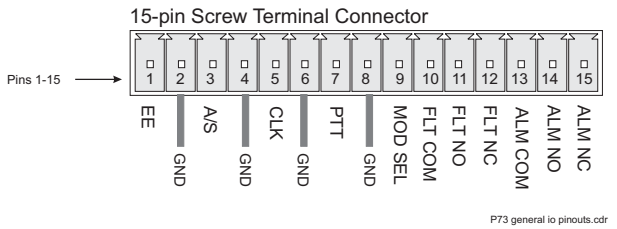

Figure 54: Pinouts for General I/O Connector

3.12.1 Export Evidence - Pin 1

Currently not used.

3.12.2 Access/Secure Input - Pin 3

ADPRO FastTx operation by default is in the Secure state and will respond to an alarm input by dialling / connecting to a remote user. The Access/Secure input allows the ADPRO FastTx to be independently set into the Access state of operation. This input is usually connected to an alarm panel or access control system. In the Access state, trigger conditions on an alarm input may not cause a dial out depending on the programmed event response behaviour. For example, during business hours a remote site may be placed into the Access state when its local security system is deactivated, but will revert to the Secure state after hours.

When the Access/Secure input pin is ‘open’ (or ‘high’), the ADPRO FastTx operates in the Secure state. Placing a ‘closed contact’ on the pin (i.e. shorting to Ground) switches the unit into the Access state.

Note: An ADPRO FastTx may be (remotely) placed into the Access or Secure state by the ADPRO VideoCentral User Interface. This action is independent of the signal level on the Access/Secure pin. After such an override, the Access/Secure input on the ADPRO FastTx is ignored until the ADPRO VideoCentral disconnects. Subsequent changes of state in the Access/Secure input will be recognised by the ADPRO FastTx. The Access/Secure state operates independently of the Operational Mode and Calendar functions. If, for some reason, the ADPRO FastTx is rebooted, it will remember the Access/Secure state held before the reboot.

3.12.3 Clock Synchronise - Pin 5

Currently unused.

3.12.4 Push to Talk - Pin 7

Currently unused.

3.12.5 Mode Select Input - Pin 9

The way an ADPRO FastTx operates its transmission and alarm handling features can be changed by using up to four different operating ‘modes’. The parameters that define a particular mode of operation, such as transmission rate and alarm responses, are configured by using the ADPRO FastTx Installer Menu (refer to *Operational Modes* on page 90).

From the ADPRO FastTx Installer Menu, any two (of the four) operating modes can be assigned to activate depending on the open/closed state of the Mode Select input pin.

When the Mode Select pin is ‘open’ (or ‘high’), the ADPRO FastTx operates by using the mode parameters assigned to that pin state. Placing a ‘closed contact’ on the pin switches the unit into an alternate mode.

3.12.6 Fault Relay

ADPRO FastTx has a fault relay, which is a double pole type, i.e. complementary Normally Open/ Normally Closed poles, on pins 13, 14 and 15 of the General Inputs/Outputs connector. The Fault relay activates while the ADPRO FastTx is in a fault state. The contacts will remain in the changeover condition until reset.

The operation is as follows:

- When the unit is powered off, the relay is Normally Closed.
- When the unit powers up and is booting, i.e. the red light is on or flashing, the fault relay is Normally Closed.
- When the unit is operating normally, the fault relay will be Normally Open.
- In the case of an over-temperature situation, the fault relay will be Normally Closed until the temperature returns to normal.

Ratings:	Switching Voltage	=	30 VDC maximum
	Switching Current	=	1 Amp maximum
	Isolation	=	750 V maximum

3.12.7 General Alarm Relay Output

Pins 10, 11 and 12 contain a Form C single pole changeover contact set. If configured to do so, the General Alarm relay activates while the ADPRO FastTx has an alarm active. The contacts will remain in the changeover condition until all alarms are reset.

Ratings:	Switching Voltage	=	30 VDC maximum
	Switching Current	=	1 Amp maximum
	Isolation	=	750 V maximum

The relay may also be configured to activate whenever the unit is connected via a network or data link to the Remote Viewing Software (e.g. ADPRO VideoCentral). This feature may be used (for instance) to notify a third-party alarm system when ADPRO FastTx activity is taking place.

3.13 Powering Up the ADPRO FastTx

The ADPRO FastTx is supplied with a universal input power supply which operates from 100-240 V AC, 50-60 Hz. There are no switches to change based upon your particular mains power voltage or frequency.

When power is applied to the ADPRO FastTx the green LED located on the front panel of the unit will illuminate.

If the green LED fails to illuminate check that there is power available from the socket into which the ADPRO FastTx is connected.

The ADPRO FastTx will then automatically perform a series of self-test routines which check the microprocessor circuits. When power is first applied to the ADPRO FastTx unit, the red LED on the front of the unit will be on. After approximately 60 seconds, the red LED should start switching on, then off, every two seconds. Once the unit successfully completes the integrity check, the red LED will switch off, and remain off.

If at any time during operation, the red LED switches on and stays on, this signifies a fault with the unit and technical support is required.

If the red LED does not switch off and remain off, do the following:

1. Unplug all of the connectors except the power and re-power the unit.
2. If the red LED extinguishes, plug each connector back in and check that the red LED remains off.
3. If the red LED does not extinguish after 10 minutes, please contact ADPRO technical support.

If the red LED continues to flash for an extended period, this signifies that corruption has been found with the database and the unit is attempting to correct the fault.

4 Programming ADPRO FastTx

4.1 Programming Checklist

The following checklist provides an overview of the main tasks required to program an ADPRO FastTx and the sequence in which they should be performed:

- Set the unique Site ID and Password for the ADPRO FastTx and ensure that matching ones are entered in ADPRO VideoCentral (refer to "*Site Details*" on page 55).
- Set the time zone on the ADPRO FastTx to the time zone of the site location (refer to "*Date/ Time Settings*" on page 56).
- Set the communication properties for the ADPRO FastTx to dial out (refer to "*Communications*" on page 58).
- Ensure the Call List numbers / addresses are those required to contact the CMS (refer to "*Call List*" on page 67).
- Ensure all connected cameras are programmed (refer to "*Cameras*" on page 71 and "Camera Behaviour" on page 93).

4.2 Setting the Operational Parameters

The ADPRO FastTx is factory configured with 'typical' operating values, but to use the ADPRO FastTx in an operational environment, its configuration must be modified to use the site names, phone numbers or network addresses that match the real network.

Once the ADPRO FastTx settings have been configured, the ADPRO VideoCentral settings must be updated to match.

4.2.1 Setting the Telephone Connection

The basic information needed to use a telephone (dial-up) connection is entered via the **Database** / **Administration** / **Configure Sites** menu. Select the **Edit** option, then highlight **PSTN** or **ISDN** in the Communications section:

- **Site ID**: 9 characters (max)
- **Password**: 8 characters (max)
- **Hunt Group**: Select from the list (**Note**: Different modem types must be installed via the Windows Control Panel)
- **Phone Number**: Enter the phone number of the modem connected to the ADPRO FastTx.

4.2.2 Setting the Network Connection

The ADPRO Video Central software will require some basic information in order to connect to any ADPRO FastTx site via a network connection. The minimum information that must be configured in each ADPRO FastTx is shown below.

To enter the information, go to **Database** / **Administration** / **Configure Sites**, select the **Edit** option, then highlight **Network** in the Communications section.

- **Site ID**: 9 characters (max)
- **Password**: 8 characters (max)
- **IP Address**: The TCP/IP network address assigned to each ADPRO FastTx (this address is normally assigned by the network manager)

Your IT manager should be able to provide the IP address settings. Once the basic connection details have been configured and saved, the ADPRO FastTx is ready to connect via the operational network.

4.3 Entering the ADPRO FastTx Setup Screen

Note: Always use extreme caution when remotely programming Transmitter systems. Changing connection parameters or passwords may result in the ADPRO VideoCentral system not being able to regain access, resulting in the need for engineering attendance at the site to reprogram the system.

Remote programming of ADPRO FastTx systems is carried out via a screen as shown below. To start the programming operation, click on the **Installer Menu** button behind the **Site Actions** button in the main ADPRO VideoCentral User Interface GUI:

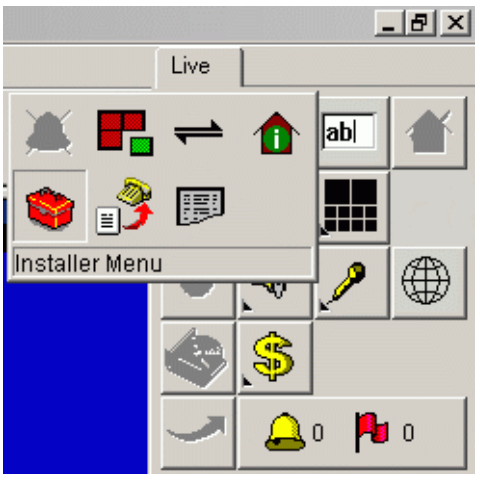

Figure 55: Installer Menu Icon

Note: Only operators logged on to the system either as Administrators or Installers have access to this icon. Users defined as Operators do not have access to this function. If this icon does not appear or appears greyed out, log out the current operator and log-on a new operator with the correct access rights.

The current settings within the ADPRO FastTx will be downloaded to the ADPRO VideoCentral system and the following screen will appear:

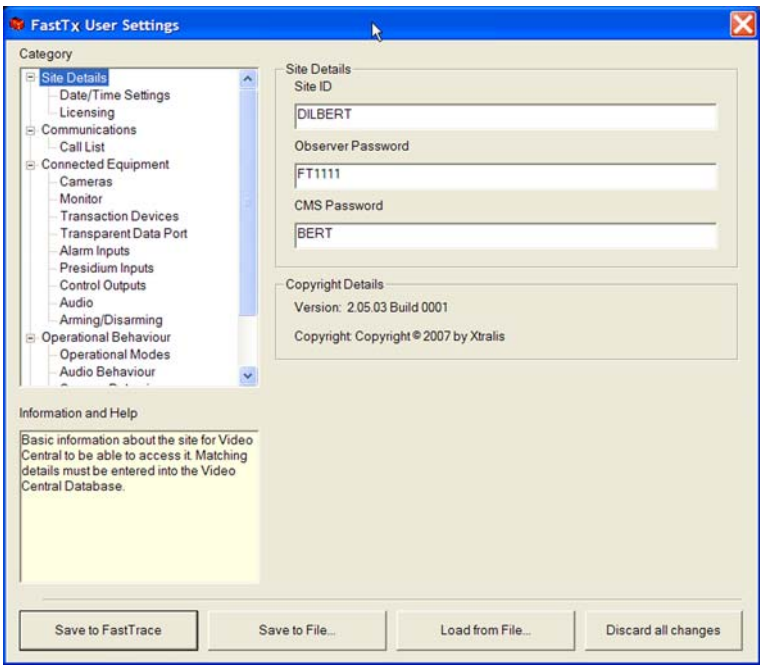

Figure 56: ADPRO FastTx User Settings

Note: Some options for a category can be affected by the status of other setting(s) and may be unavailable (shown 'ghosted').

The programming GUI is a separate program to ADPRO VideoCentral and there are numerous different versions (although outwardly all look the same). The precise version used is dependent upon the software installed on the ADPRO FastTx system being programmed. The programming software is held on the remote ADPRO FastTx system and downloaded to the ADPRO VideoCentral PC for use. For this reason the programming screen may sometimes takes a few minutes to appear on the screen (depending upon the speed of the connection to the ADPRO FastTx system). ADPRO VideoCentral only needs to download any given version of the programming software once, after this the software is stored on the PC for use at a later time, speeding up the programming operation. Once the settings (and set-up program if necessary) have been downloaded the programming software will start automatically.

Selecting the **Save to FastTx** button at any time will cause all settings currently within the software to be sent to the ADPRO FastTx system (a confirmation box will be presented to verify the required action). Before sending the new programming to the ADPRO FastTx, the software will perform a check to make sure all settings are valid and any anomalies will be advised.

Once all settings are valid, they will be downloaded to the ADPRO FastTx system and the system will be disconnected to allow the settings to take effect.

Selecting the **Discard all changes** button any time will close the Setup without sending any settings to the remote ADPRO FastTx system (a confirmation box will be presented to verify the required action).

4.3.1 Saving a Configuration to File

Selecting the **Save to File …** button displays the **Save As** dialog box.

- Files are saved in a 'FastTx User Settings (*.fus)' file format.
- Characters such as ':', '*' and '?' in the filename are invalid and will not be accepted.
- If the file already exists, the user shall be asked whether or not they wish to overwrite the existing file.

If an error in saving occurs, such as insufficient storage space, the user will be informed of the error by a dialog box.

4.3.2 Loading a Configuration from File

Selecting the **Load from File …** button displays the **Load Settings** dialog box.

- The 'Files of type' drop down list is displayed as default 'FastTx User Settings (*.fus)'.
- Select **Open** to open the file.
- The user is prompted whether or not to use the Ethernet IP settings from the file to be loaded or to retain the current ones. The following dialog is displayed:

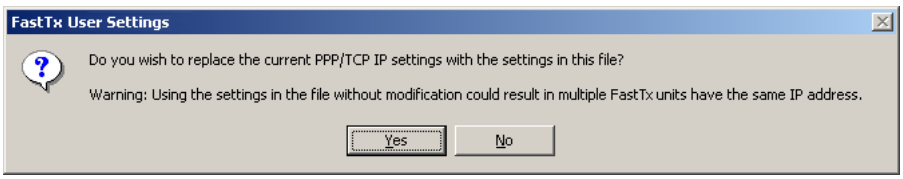
FastTx User Settings
Do you wish to replace the current PPP/TCP IP settings with the settings in this file?
Warning: Using the settings in the file without modification could result in multiple FastTx units have the same IP address.
Yes
No

Figure 57: TCP IP Settings

Note: Users are warned to take note of the IP address in the ADPRO FastTx unit before saving settings to ensure the unit can be contacted once setup is complete and the site is disconnected.

If the selected settings file is incompatible, then the following dialog is displayed:

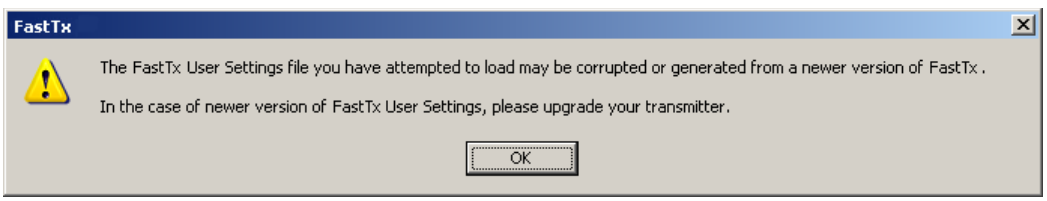
FastTx
The FastTx User Settings file you have attempted to load may be corrupted or generated from a newer version of FastTx.
In the case of newer version of FastTx User Settings, please upgrade your transmitter.
OK

Figure 58: Incompatible User Settings File

The reasons for receiving the above dialog can include:

- Attempting to use a settings file that is newer than the unit's current software version allows.
- Attempting to load settings files using a version of the setup GUI that is newer than the unit's current version of setup GUI.

To rectify this, the user must either use an older setup file, or upgrade the ADPRO FastTx.

If the saved settings file is corrupted or unsupported, the **Save to FastTx** button is disabled to prevent that file being used by the ADPRO FastTx. If a valid settings file is selected the **Save to FastTx** button is re-enabled.

4.3.3 Site Details

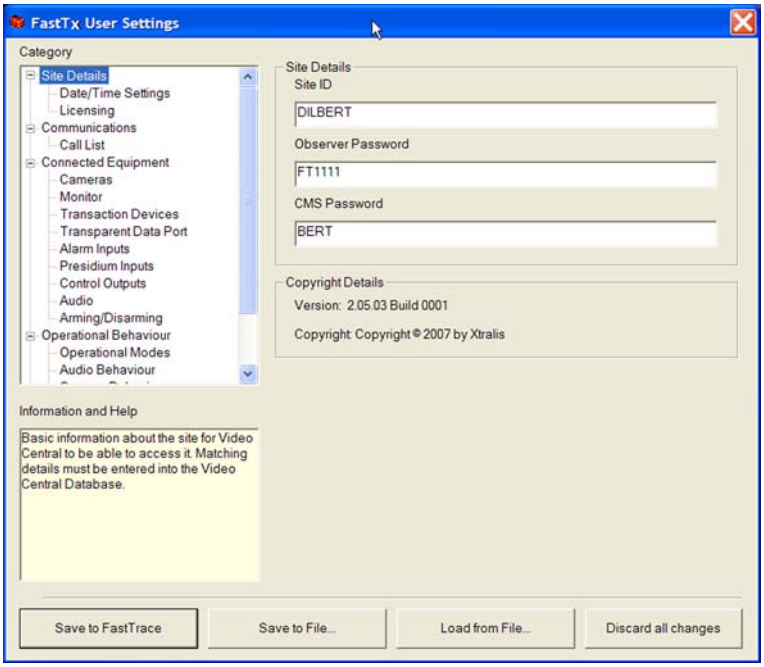

Figure 59: Site Details Menu

Site ID

Each ADPRO transmitter must have a unique site ID. The maximum site ID alpha-numeric length is 9 characters. Note that the 'local' site ID entered here must match a site ID entry in the ADPRO VideoCentral Site List (**Database** / **Administration** / **Configure Sites**).

The default site ID is **Fastrace**.

Passwords

ADPRO VideoCentral may be installed as a CMS system, which will receive alarms (VC Gold or VC Lite with dongle), or as an Observer, which will not receive alarms (VC Lite without dongle). When configuring sites in ADPRO VideoCentral (**Database** / **Administration** / **Configure Sites** / **Edit**) either the Observer password or CMS password must be entered, depending on the type of ADPRO VideoCentral installation. This ensures that when online, ADPRO FastTx will only send alarms to a ADPRO VideoCentral CMS system (and not to an Observer).

Both the Observer and CMS password fields must be entered at the ADPRO FastTx so that both user types can connect to the site, while ensuring only a CMS user has alarm images sent to them.

The default CMS password is FT2222.

The default Observer password is FT1111.

4.3.4 Date/Time Settings

To enable accurate event tracking, the ADPRO FastTx can be set to accommodate local or regional daylight saving time shifts when they affect the location where the ADPRO FastTx is installed.

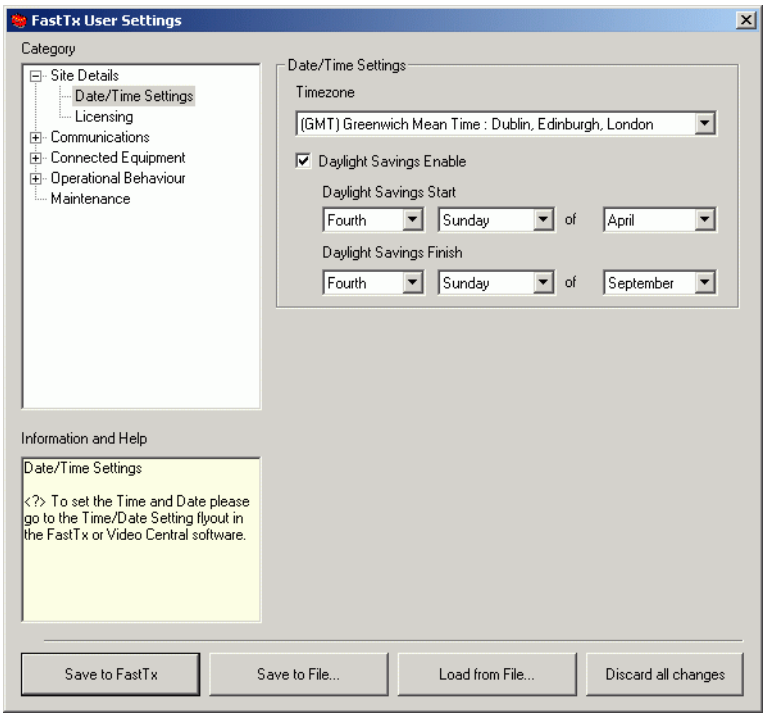

Figure 60: Date/Time Settings Menu

Time Zone

The **Time Zone** field is used to define the number of hours and minutes that the actual site location is ahead (or behind) the UTC reference of 0 degrees of longitude (also known as Greenwich Mean Time).

Daylight Saving

In regions where daylight saving is implemented over the summer months, users can enter the local start and finish dates to ensure the ADPRO FastTx clock is automatically corrected. The **Daylight Savings Enable** check box is used to start this feature and allow entry of the start and finish dates.

ADPRO FastTx implements daylight saving start and finish at 2 am local time (02H00) and will advance or set back the time by 1 hour accordingly.

Caution: When the ADPRO FastTx unit is shipped from the factory, Universal Time is programmed in the unit and is used as the ‘current’ time. To match the ‘current’ time to the local time at your location, change the time zone setting to the correct zone. Changes to the value of the ‘current’ time (via ADPRO VideoCentral) should only be used for minor adjustments when absolutely necessary.

This warning only applies to changes to the value for current time and does not apply to Time Zone or Daylight Saving changes.

Adjusting ADPRO FastTx Time via ADPRO VideoCentral

If the time zone has been set correctly, as detailed above, but the time at the ADPRO FastTx is not accurate, the time may be changed via ADPRO VideoCentral.

This may be performed by double clicking on the time and date displayed at ADPRO VideoCentral while connected to the ADPRO FastTx. The following screen is displayed:

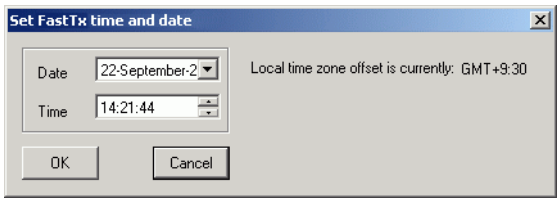

Figure 61: Set ADPRO FastTx Time and Date

4.3.5 Licensing

The Licensing options enable users to:

- Enable the Transaction Device (ATM/EPOS) functionality, or
- Add Digital Video Recorder (DVR) functionality to the ADPRO FastTx through a license purchased from your distributor.

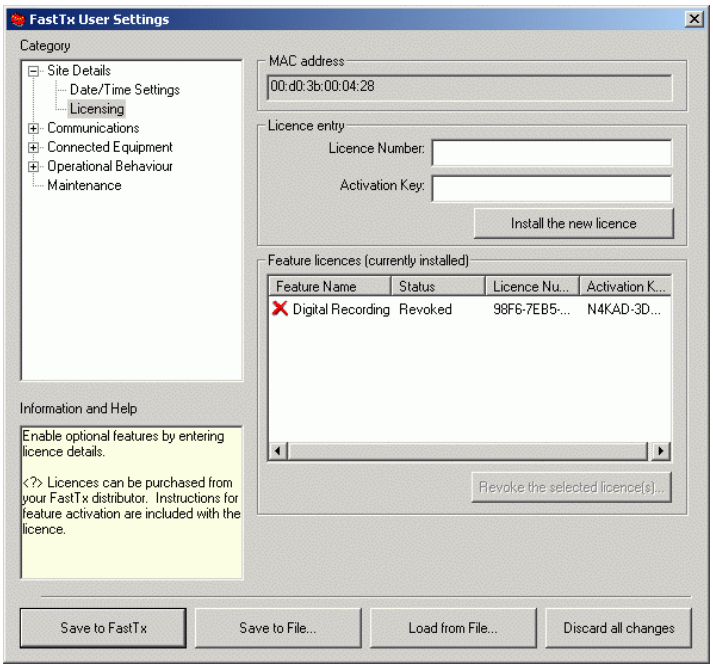

Figure 62: Licensing Settings

- **MAC address**: This field is automatically populated.
- **Licence Number**: Enter the Licence Number (supplied on the label of the licensing CD).
- **Activation Key**: The Activation Key is generated from the ADPRO software licensing webpage using the MAC address of the ADPRO FastTx unit and the License Number supplied on the CD.

Transaction Device Licence

A Transaction Device can be connected to the ADPRO FastTx via one of the GP Serial ports. Up to sixteen transaction devices can be configured.

Once the licence details are entered, you can then configure the transaction device function.

Refer to *Transaction Devices* on page 78 for more information.

DVR Functionality Licence

The ADPRO FastTx may be upgraded to add DVR functionality. The ADPRO FastTx will then have equivalent functionality to the ADPRO FastTrace.

4.3.6 Communications

The **Communications** menu provides configuration settings for the Ethernet and two serial communication ports.

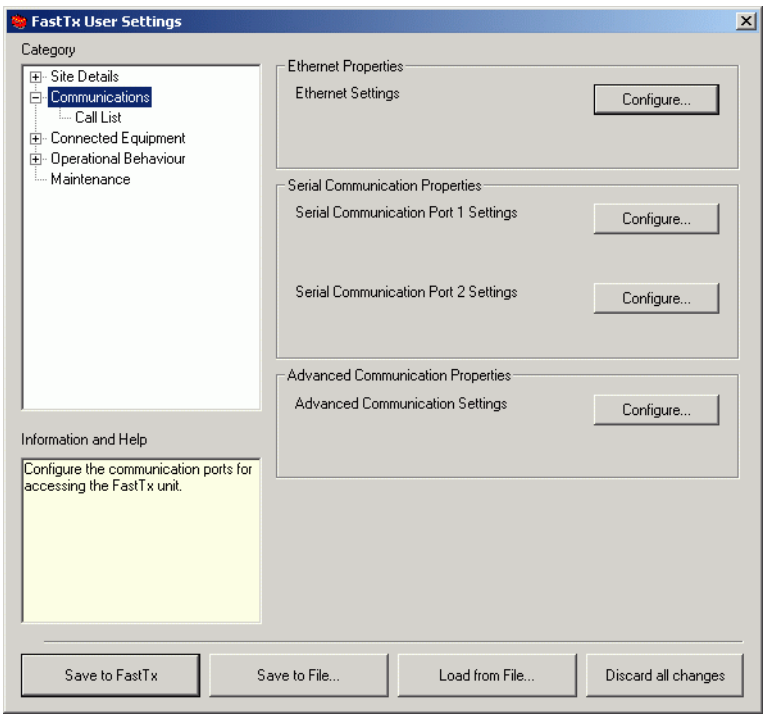

Figure 63: Communications Menu

Ethernet Properties

A direct connection to a 10BaseT or 100BaseTX Ethernet network can be made via the Ethernet Port. To change this address, the Subnet Mask or Default Gateway address, click the **Configure** button. **Ethernet Settings** are used to configure the TCP/IP parameters for a LAN or WAN connection.

Note: Always obtain Ethernet IP Address, Subnet Mask and Gateway details from the IT Manager responsible for the network where the ADPRO FastTx is installed. DO NOT CONNECT ADPRO FASTTX TO THE ETHERNET UNTIL THESE SETTINGS HAVE BEEN MADE AND VERIFIED.

Important: **To ensure correct network connectivity, please ensure ADPRO FastTx is connected to the network before being powered on. This enables the ADPRO FastTx unit to detect the correct network speed (10BaseT or 100BaseT).**

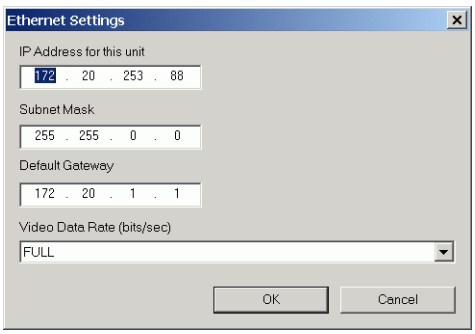

Figure 64: Ethernet Settings

IP Address for this Unit

Factory Default 192.168.1.1

The **IP Address** is used to identify the ADPRO FastTx device as a TCP/IP network node. Each ADPRO Transmitter monitored from the same installation of ADPRO VideoCentral requires a **unique IP** (Internet Protocol) address. The address is divided into four parts separated by a (.), each part with a decimal range value from 0 to 255.

The following address ranges are invalid:

- 0.xxx.xxx.xxx
- 127.xxx.xxx
- 224-239.xxx.xxx.xxx
- 240-255.xxx.xxx.xxx
- xxx.xxx.xxx.0
- xxx.xxx.xxx.255
- 192.168.10.xxx

Caution: Changing the IP address may mean you can no longer connect to the ADPRO FastTx.

Caution: ADPRO FastTx can use two different types of interfaces, Ethernet and serial RS232, to communicate with ADPRO VideoCentral via an intermediate network. Each of the communications interfaces on ADPRO FastTx has an IP address associated with it (ADPRO FastTx has three IP addresses, one for each of the two serial RS232 interfaces and one for the Ethernet interface).

Each ADPRO FastTx must have unique IP addresses for each communications interface. This will require management by the Monitoring Stations to ensure all ADPRO FastTx units that communicate with the Monitoring Station have unique IP addresses.

For more information, please refer to Tech-Tip - Unique IP Address Requirements, available on the website: **www.xtralis-fs.com/adpro**.

Subnet Mask

Factory Default 255.255.255.0

The **Subnet Mask** is used in conjunction with the IP Address to determine whether the destination node is located on a local network segment or on a remote network.

Each logical IP Address has two parts: the NETWORK ID and the HOST ID. The Network ID identifies all hosts that are on the same physical network and the Host ID identifies a specific host on the network.

The subnet mask is used to filter (mask) the portion of the IP Address that is common to the local network and thus allow individual hosts to be accessed.

If the subnet mask is changed for any reason, ADPRO FastTx will not begin to use the new subnet mask until the unit has been power cycled.

Default Gateway

Factory Default No Gateway

For communication with ADPRO VideoCentral located on another network, the ADPRO FastTx must be given the address of the first host device on the route to the destination network (and vice versa). The **Default Gateway** is the address of the host to which the ADPRO FastTx sends packets that are destined for the remote network.

If a default gateway is not specified, communication is limited to the local network.

Note: It is important that a gateway address is only entered if a gateway is present.

Note: If a Default Gateway is to be used, **Ethernet** must be selected as the **Main** or **Backup Communications Link** (refer to *Call List* on page 67 for details).

Note: For information regarding IP addressing when connecting through a network router, please refer to Tech-Tips - ‘Unique IP Address Requirements’ and ‘Secured TCP/IP Connectivity for FastTrace, ADPRO FastTx and ADPRO VideoCentral’ on the website at: www.xtralis.com/adpro, or contact your nearest sales office for a copy.

Note: Refer to *Firewall Configuration* on page 26 for firewall port information.

Video Data Rate

Options: Full, 32 kbps, 64 kbps, 128 kbps, 256 kbps, 384 kbps, 512 kbps, 1 Mbps, 2 Mbps

Factory Default: Full

The **Video Data Rate** option provides the ability to control the amount of bandwidth that is used when transmitting video data to ADPRO VideoCentral. Bandwidth is a limited resource and is shared between all users on a network.

The Video Data Rate acts like a 'throttle' and is useful if the network administrator needs to limit the amount of bandwidth used by certain devices. Refer to your Network / System Administrator for further advice regarding any bandwidth restriction or limitation.

Note: This data rate applies per user: if two users are connected at 32 kbps, the total bandwidth used would be 64 kbps.

Serial Communication Properties

There are two Serial Communication Ports for analog telephone line or digital line connection for communications with ADPRO VideoCentral. Modems are used for analog line (PSTN) connections and terminal adaptors (TA) for digital lines (ISDN). The COMMS 1 port is fitted with a 25-pin D male connector. The COMMS 2 port is a 9-pin D male (refer to *Comm Port 2 Connection* on page 30).

Note: The COMMS 2 port can be used for direct connections to a PC for local setup and for software upgrades. A Null Modem driver is provided in the ADPRO VideoCentral installation CD.
Refer to Tech-Tip 11460_00–Windows XP SP2 Issues (available on the website: **www.xtralis.com/adpro**) for more information on the use of the Null Modem Cable.

The **Serial Communications Port 1 Settings** and **Serial Communications Port 2 Settings** menus allow the operating parameters of the two serial ports to be configured to match the model of modem or terminal adaptor used.

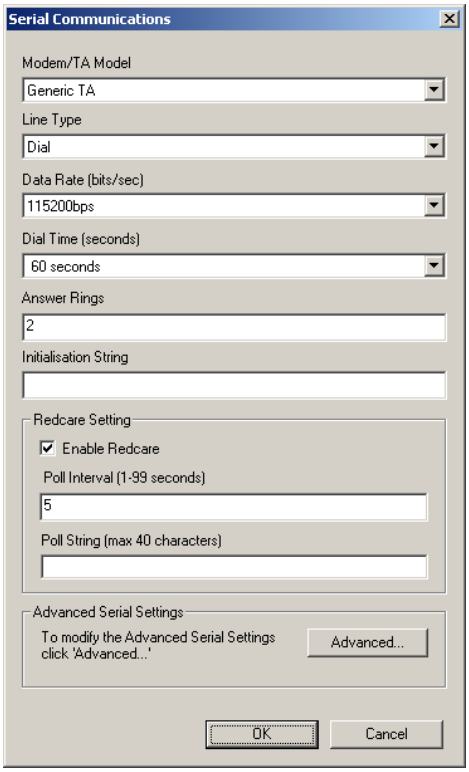

Figure 65: Serial Communication Port Settings Menu

Modem/TA Model

Options: Model List, Direct Connect

Select the model of the modem or terminal adapter (TA) connected to the particular COMMS port. Refer to the device's user manual to assist with setting the correct configuration.

Use the Direct Connect option when the ADPRO FastTx is connected directly to a PC running the ADPRO VideoCentral software. In this case, no modem or TA is required and a special ('null-modem') cable is needed for correct operation.

Line Type

Options: Dial, Leased Line

Factory Default: Dial

The **Dial** option is used for analog (PSTN) or digital (ISDN) networks where the connection is usually made by dialling a particular telephone number. These lines may be routed via a switchboard or PABX system.

Set this option to **Leased Line** if the system is connected via a dedicated (leased) line. Leased lines are not normally routed through telephone switchboards or PABX equipment and no dialling is required for the connection to be made.

Data Rate

Options: 9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps, 230400 bps

Factory Default: 115200 bps

The **Data Rate** setting determines the speed in bits per second (bps) that data will be transferred between the ADPRO FastTx COMMS port and the interface of the modem or terminal adaptor.

When connected to modems, the ADPRO FastTx is normally programmed for asynchronous data at a specific data rate and is set for the maximum data rate that the particular modem can support. This is commonly referred as the DTE to DCE baud rate.

Dial Time

Options: 30 seconds, 60 seconds, 90 seconds, 120 seconds

Factory Default: 60 seconds

The **Dial Time** is the maximum time (in seconds) the ADPRO FastTx will wait before determining a connection cannot be established and terminating the attempt. Dial Time starts from the instant the dial procedure is initiated and can be set in 30-second increments. It is important that the chosen value takes into account the time required to dial the number and the number of **Answer Rings** programmed in the ADPRO VideoCentral PC at the receiving end.

A typical value is 60 seconds for the dial (PSTN) network and 30 seconds for the ISDN network.

Answer Rings

Options: 0 to 9, (0 = Don't Answer)

Factory Default: 2 rings

The ADPRO FastTx can be programmed to either:

a. wait for a programmable number of rings from 1 to 9, in one ring increments, before answering an incoming call, or

b. not answer any incoming calls (when the value is set to 0).

For example, set Answer Rings = 0 when the user does not want ADPRO VideoCentral accessing this particular site if no alarms are being generated. Generally the **Answer Rings** option would be set to 1-3 rings.

Initialisation String

This option is used to enter additional Hayes AT commands (in ASCII format) that may be required to configure a modem or Hayes compatible RS232 terminal adaptor to initiate (or activate) a particular product feature or setting. Refer to the User Manual of the particular device to obtain the required Hayes AT commands.

Note that the Hayes command prefix ('AT') does NOT have to be entered at the start of an Initialisation String, as it is automatically prefixed to the string contents by the ADPRO FastTx software.

Redcare Setting

The Redcare setting enables the system (ADPRO FastTx, Modem and Telephone Exchange) to perform a periodic Security Poll to ensure that the line is still active and the communications equipment is useable.

If the 'Modem/TA Model' drop down list is set to 'Direct Connect', the 'Redcare Setting' box is not available.

Note: Check whether your telecommunications provider offers the Redcare service.

Enable Redcare Check Box

If the operator checks the 'Enable Redcare' checkbox the Security Poll feature is enabled, and the Poll Interval and Poll String edit boxes become available.

Poll Interval

Options:1 to 99 seconds

Factory Default: 5 seconds

The operator can enter a number of seconds to determine how often the 'Poll String' is sent to the modem.

Poll String Edit Box

The installer can enter a string that is used to send to the modem, indicating that the ADPRO FastTx is still operating. The maximum number of characters is 40.

Note: Please check with your telecommunications provider as to the availability of this feature.

Advanced Serial Communications Settings

The Advanced Serial Communications Settings are used to configure the Point to Point Protocol (PPP) and Password Authentication Protocol (PAP) parameters to be used by the ADPRO FastTx.

PPP is the internet standard for transmission of IP packets over serial lines (asynchronous and synchronous) and PAP provides the security for the serial connection.

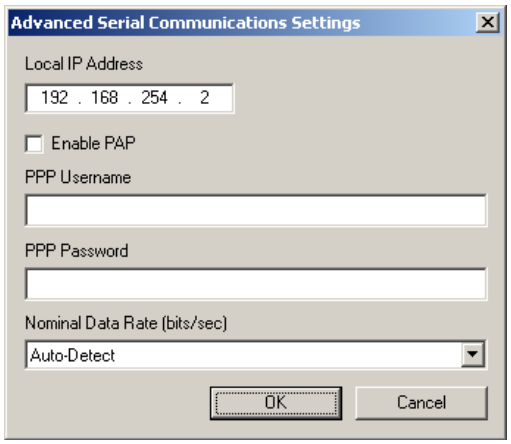

Figure 66: Advanced Serial Communications

Local IP Address

Factory Default: 192.168.254.1

Sets the **Local IP Address** assigned to ADPRO FastTx's COMMS port. This address is used by the PPP messaging software and is **NOT** the same as the Ethernet Properties setting or of **any other device on the network**.

When multiple ADPRO FastTx units are to be accessed from a single ADPRO VideoCentral system, each ADPRO FastTx unit MUST have a unique Local IP Address (ie. do not leave at the factory default address) for each serial and ethernet connection.

For more information, please refer to:

Tech Tip 10470_00 - Unique IP Address Requirements, available on the website: **www.xtralis.com/adpro**.

Caution: Contact Xtralis technical support for advice before entering data into: **Enable PAP**, **PPP Username** or **PPP Password**.

Enable PAP

Factory Default: No

Set this checkbox to enable Password Authentication Protocol. PAP will authenticate the remote system during the PPP negotiations. The valid username and password are defined by the fields of PPP Username and PPP Password.

PPP Username

Option: 20 characters maximum.

The **Username** (or Site Name) that will be provided by PPP when negotiating a serial IP connection. It is only required when PAP is enabled.

Note: The PPP Username is a function of the modem or TA and will also need to be set in the device.

PPP Password

Option: 20 characters maximum.

The **Password** that will be provided by PPP when negotiating a serial IP connection. It is only required when PAP is enabled.

Note: The PPP Password is a function of the modem or TA and will also need to be set in the device.

Nominal Data Rate (bits/sec)

Options: 8 kbps, 16 kbps, 32 kbps, 64 kbps, 128 kbps, Auto Detect.

Factory Default: Auto Detect

The **Nominal Data Rate** option is used by the ADPRO FastTx to maximise the data rate on the communication link. It is different from the 'Data Rate' setting for the Modem / TA, in that ADPRO FastTx attempts to send data at the specified *nominal data rate* at all times. This option helps to provide consistency in the image transmission time of the system, especially when the line quality of a communications link is unknown.

The Nominal Data Rate should be set to either **auto detect** or to the known speed of the communications network. For example, use the '128 kbps' option when connected via a Basic Rate ISDN line.

Advanced Communication Properties

The **Advanced Communication Properties** option defines the Base Port Number used for communications with the PC running ADPRO VideoCentral software.

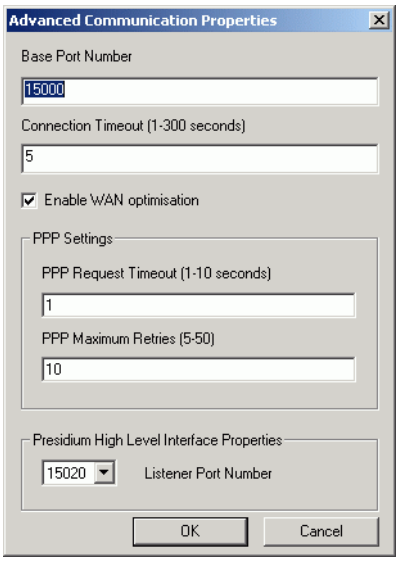

Figure 67: Advanced Communication Properties

Base Port Number

Options: <value> Range is 2049 to 65536

Factory Default 15000

The default value = 15000 and should not be changed unless a conflict occurs due to a network connection of other third-party equipment.

Caution: If the Base Port Number is changed, then all ADPRO FastTx units and ADPRO VideoCentral must be changed to the same value. Failure to do this on all communicating systems will result in communications failure.

Connection Timeout

Options: <value> Range is 1 to 300 seconds

Factory Default 5

This setting defines the time that ADPRO FastTx will wait for a response from ADPRO VideoCentral on initial connection over Ethernet. If this time is exceeded without a response, ADPRO FastTx will retry the connection.

Enable WAN Optimisation

Factory Default: Yes

Set this checkbox to optimise communications throughput for audio and video transmission. Only switch this off if advised by Xtralis technical support.

PPP Settings

ADPRO FastTx uses PPP when communicating over serial devices, such as modems and terminal adaptors. Only change these settings if advised by Xtralis technical support.

PPP Request Timeout

Options: <value> Range is 1 to 10 seconds

Factory Default 1

This setting sets the default timeout for negotiating a PPP connection. In some instances, such as when communicating from GSM to GSM, the time required to negotiate the PPP link can be significant.

PPP Maximum Retries

Options: <value> Range is 5 to 50

Factory Default 10

This setting sets the default retries for negotiating a PPP connection. In some instances, such as when communicating from GSM to GSM, the negotiation can fail and the system must retry the negotiation.

Presidium High Level Interface Properties

Factory Default 15020

If a Presidium is connected to the ADPRO FastTx, the Listener Port Number defines on which port the Presidium High Level Interface communicates with the ADPRO FastTx.

This setting must be the same port as that selected in the Presidium Setup Utility, High Level Interface tab.

4.3.7 Call List

The **Call List** options are used to configure a list of (ADPRO VideoCentral) sites that the unit will attempt to contact when an alarm is triggered.

Note: The main and backup communication links should not be set to the same link. If they are set to the same link, the system will not use the backup settings if the primary is unsuccessful.

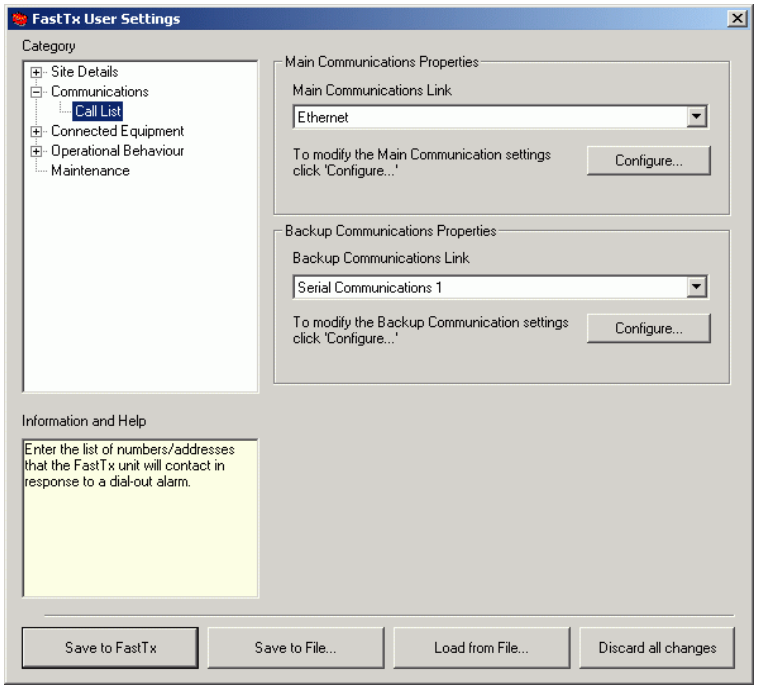

Figure 68: Call List Menu

Main Communications Link

Options: Ethernet, Serial Communications 1, Serial Communications 2

Factory Default: Ethernet

The **Main Communications Link** defines which communications port the ADPRO FastTx will use to establish connections to the CMS in the event of an alarm and also which numbers / IP Addresses it will attempt to connect to.

When the **Main Communications Link** is set to **Ethernet** or **Serial Communications 1 (or 2)** and an alarm is triggered, the ADPRO FastTx will use the details entered into the **Call List Properties** to connect to ADPRO VideoCentral.

Click the **Configure** button to add or modify the Call List Properties.

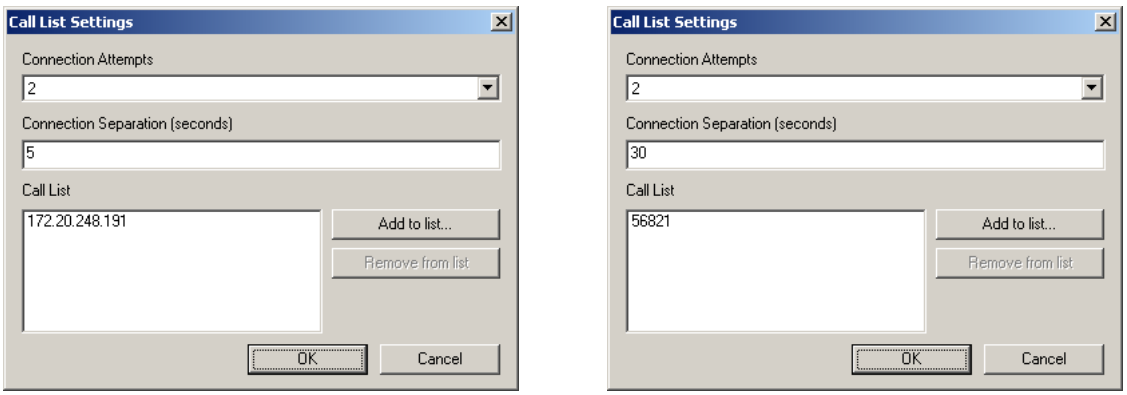

Figure 69: Call List (Ethernet-left, Serial-right) Properties

Use the **Add to list** button to place details of up to five sites on the Call List. All entries will be subject to the **Connection Attempts** and **Connection Separation** values.

Connection Attempts

*Serial Connection Options:*0, 1, 2, 3, 4, 5

*Ethernet Connection Options:*0 - 100

Factory Default: 2

Use the drop-down list to select how many times ADPRO FastTx will try to contact each number in the list before moving on to the next number. The maximum is 100 for Ethernet or 5 for serial communications.

Note: Entering a value of '0' will stop any attempt to connect.

Connection Separation (seconds)

Options: <value in seconds> Range 5 to 300

Factory Default: 5

Connection Separation is the time in seconds to wait between each call attempt (5 - 300 seconds). The Connection Separation time starts from the end of the last **Connection Attempt** and can be set in 1-second increments. It is important that the chosen value takes into account any delays introduced by the network itself or routers, gateways etc.

Note: When all addresses or telephone numbers in the list have been tried and no successful connection has been made, the Alarm Event is held until a subsequent alarm event initiates another connection attempt. ADPRO FastTx can store at least six alarm events with images before connection. After connection is made images will be sent with alarms once the stored alarms have been sent. An exception to this are Duress alarms, which will still have associated images sent.

Backup Communications

Options: None, Ethernet, Serial Communications 1, Serial Communications 2

Selects an alternative (backup) communications path and Call List to be used if none of the addresses or telephone numbers entered in the primary call list can be contacted.

The addresses (or numbers) to be used by either Ethernet or Serial Communications ports are entered in a similar way to the primary list.

Note: Selecting the option **None** will disable any backup Call List and the **Configure** button will be unavailable.

4.3.8 Connected Equipment

The **Connected Equipment** menu provides a number of sub-menus to configure the settings that the ADPRO FastTx will use when interacting with external equipment such as video cameras, microphones/speakers, alarm inputs and control output devices as well as the local monitor and alarm relay contacts.

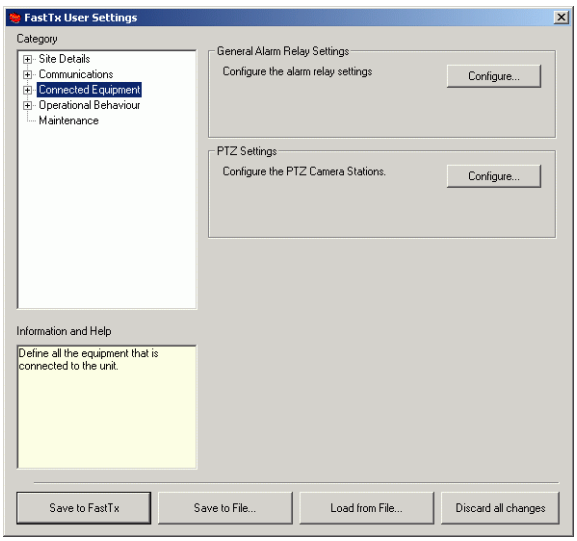

Figure 70: Connected Equipment Menu

General Alarm Relay Settings

The ADPRO FastTx is equipped with a normally open Form C relay contact for use with external monitoring equipment, for example a fire or burglar alarm monitoring panel. The General Alarm Relay settings can be used to notify external equipment that the ADPRO FastTx has changed its operational state.

The **General Alarm Relay** settings specify when the relay activates. The two options available are:

- **On Event (default)** - The relay is active (closed) when there is an event on the ADPRO FastTx which has not been accepted by a ADPRO VideoCentral system. Once all alarms have been cleared the relay will revert to its normal (de-energised) state.
- **On Connection to Site** - The relay is active (closed) while there is a valid connection to a ADPRO VideoCentral system. The operation shall happen regardless of who originated the call (i.e. whether a remote operator has called into the system or if the system has called out to report an event).

Note: The General Alarm Relay will not be activated when an alarm on the Entry/Exit path or a Duress alarm is triggered.

PTZ Settings

Serial Options: 360vision, Amux IEC, Baxall ZMX, Baxall ZTX, Baxall ZTX7, BBV, Burle, COHU, Conway, CS Lilin, Dennard 2050, Diamond, Digital Sprite, Elbex, Ernitec, GPS, Grundig, Harris, JVC, Kalatel CyberDome, Kalatel KTD 12x, Mark Mercer, Molynx, Pacom 2018, Panasonic (Conventional), Panasonic (New), Pelco Coaxitron 4800_8_E_1, Pelco_D_2400_8_N_1, Pelco_D_4800_8_N_1, Pelco P 4800_8_N_1, Pelco P 9600_8_N_1, Philips, Samsung (Lens only), Sensormatic, Sensormatic Controller, Sensormatic SpeedDome VII, Siemens, Synectics, Unidex, VCL, Vantage Juno, Vicon, Video Switch, Video Technical Fastrax-P, Vista PowerDome, Xeno Neodome.

Down the Coax Options:Baxall Coax Alt, Baxall Coax Std, BBV Coax, Pelco Coax Ext.

Factory Default: No PTZ

When using Pan/Tilt/Zoom (PTZ) cameras or telemetry stations, the type of device must be set. Information to control a serial PTZ unit will be sent via the PTZ port connector on the rear panel.

To use a PTZ camera, individual Camera Settings require the **'This Camera has a PTZ station'** checkbox to be set.

ADPRO FastTx also incorporates the ability to use a 'Down the Coax' module to send control signals to some telemetry camera stations, down the same coaxial cable that is used to transmit video to the ADPRO FastTx.

This module can only be fitted at the factory or at your service centre.

Notes on PTZ settings:

- Only one PTZ telemetry type can be selected on a ADPRO FastTx system (i.e. it is not possible to select a combination of telemetry types for different cameras).
- This setting only defines the telemetry protocol to be used by the system. Individual cameras which have PTZ functionality must be set-up accordingly under the individual camera setup.

Note: Please refer to PTZ Tech Tips for connection and setup information on the website - **www.xtralis.com/adpro**.

4.3.9 Cameras

Selecting the **Cameras** option displays a list of available video channels and any camera name assigned to the channel.

The number of available channels will depend on the ADPRO FastTx Model number. The number list directly relates to the video input number on the back plane of the ADPRO FastTx.

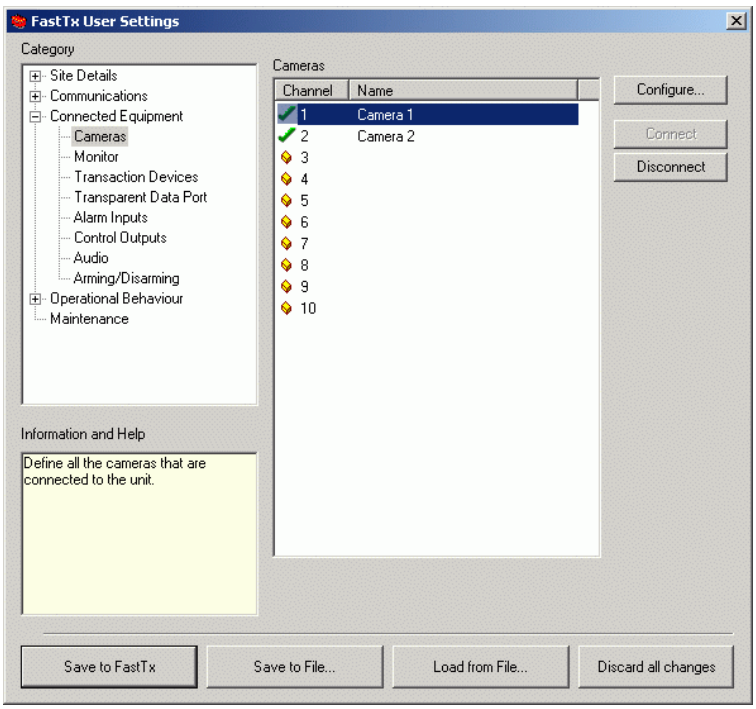

Figure 71: Cameras Menu

The status of a Channel is shown by a small icon to the left of the Channel number.

- A Channel is **free** when the 'empty' icon is shown next to the number.
- The **Connect** button is used to set the status of a channel and enable the video for viewing. When enabled, other details about **this** camera can be modified.
- To temporarily disable the use of a camera and any alarms that may be generated by it, the **Disconnect** button is used. For example, Disconnect can be set if maintenance is being performed on that camera.

Camera Settings

Once a channel has been selected, the **Configure** button is used to access the **Camera Settings** menu. The menu is used to define the behaviour of each individual camera and a number of tabs are available to set various properties.

General Tab

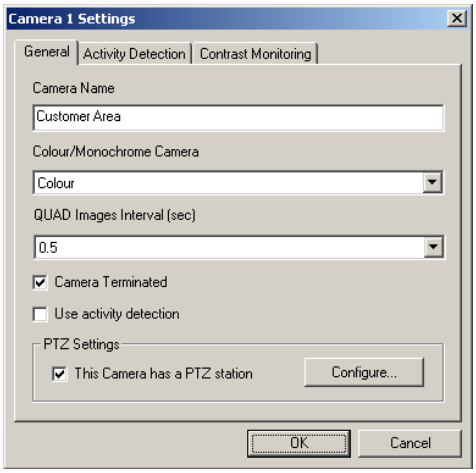

Figure 72: Camera Settings - General Tab

Camera Name

Option: 16 characters maximum.

Type the name to be associated with this camera. Hint: Try to use names that make the camera location and the channel number to which it is connected, easily identifiable. For example, CAM07 LIFT LOBBY, REAR DOOR CH15 or CH09 ATM#3 EAST.

Colour/Monochrome Camera

Options: Colour, Monochrome

Default: Colour

This option is useful if monochrome cameras are being used on the system. When a particular camera is defined as monochrome only (black and white), the processing hardware is able to 'sharpen' the images by bypassing some of the colour filter processing normally performed on the signal.

QUAD Images Interval

Options: 0.2, 0.3, 0.4, 0.5, 1, 2, 3, 4, 5 seconds

Default: 0.5 seconds

This option allows the user to define the required interval (in seconds) between images being captured after an alert is generated, for the quad alarm sent to ADPRO VideoCentral.

Camera Terminated

Options: Yes, No

Default: Yes (ticked)

Use the checkbox to define whether the selected channel (camera output) is terminated with a 75 ohm resistance. By default all channels are terminated.

Clear the checkbox when the video cable from the camera is to be connected to the ADPRO FastTx's video input via a 'T-Connector'. In this case, the video may be fed to another piece of equipment, for example a video switcher or a CCTV monitor.

Caution: Camera termination is only active whilst the ADPRO FastTx is powered. If, for any reason, the power is removed from a ADPRO FastTx unit, any connected cameras will become unterminated.

Use Activity Detection

The ADPRO FastTx can be setup to respond to changes that occur within the field of view of a camera. This feature is used to trigger an alarm if activity is detected by a certain camera in an area not normally expected to have activity.

To help configure the Activity Detection feature, the sensitivity to movement and the amount of time that movement occurs can be programmed. This is done by selecting the **Activity Detection** tab.

PTZ Settings

This Camera has a PTZ station.

Options: Yes, No

Default: No

Set the checkbox when this channel is connected to a camera with PTZ (Pan/Tilt/Zoom). The type of PTZ equipment is set in the **PTZ Settings** option (refer to "*PTZ Settings*" on page 70).

If checked, the **Configure** button will become available. By clicking on the **Configure** button, the Alarm Preset Settings may be modified.

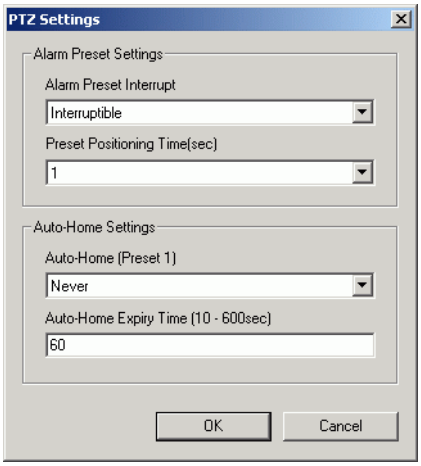

Figure 73: Camera Settings - PTZ

The PTZ Preset on Alarm feature allows the user to associate an alarm input, activity detection on another connected camera or an ATM/EPOS transaction, to a preset camera position, so that, in the event of an alarm, ADPRO FastTx will send the PTZ camera to a pre-programmed preset position automatically.

The following parameters must be defined to use the PTZ preset on alarm feature:

- QUAD images interval (delay between images)
- Alarm Preset Interrupt
- Time delay between Alarm Presets
- Enable Auto-Home
- Auto-Home expiry time

Time delay between QUAD images is described in the section above - refer to "*QUAD Images Interval*" on page 73.

Alarm Preset Interrupt

Options: Interruptible, Non-Interruptible

Default: Interruptible

This option determines whether a PTZ camera that is currently going to a preset because of an alarm activation, can be directed to another preset when another alarm activation occurs (or be manually moved by an operator at the CMS).

If set to Interruptible, when a camera is in the process of going to a preset (say preset 4), and then another alarm occurs with an associated preset (say preset 5), the camera will terminate the movement to preset 4 and go to preset 5. If the setting was Non-Interruptible, then the camera would complete the movement and image acquisition at preset 4, and then go to preset 5.

If the Non-Interruptible option is selected, the following dialog box is displayed to warn the user of the potential to cause events to be queued and add delays in capturing event images.

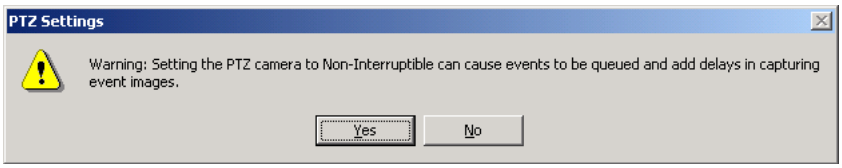
PTZ Settings
Warning: Setting the PTZ camera to Non-Interruptible can cause events to be queued and add delays in capturing event images.
Yes
No

Figure 74: Alarm Preset Warning

Preset Positioning Time

Options: 0, 0.1, 0.2, 0.3, 0.4, 0.5, 1, 2, 3, 5, 10 seconds

Default: 1 second

The Preset Positioning Time is the delay (in seconds) between an alarm input trigger and the first alarm image being captured to send to ADPRO VideoCentral. This delay will allow a PTZ camera enough time to move to its alarm preset and come to a stop before acquiring the first alarm image, eliminating blurred or unuseable images.

Auto Home

Options: Always, Never

Default: Never

ADPRO FastTx can be configured to automatically send a PTZ camera station to pre-position 1 after a period of no PTZ commands being issued to that camera station, or configured to leave the PTZ camera station in its current position. When the **Always** option is selected, a time value is also necessary as explained below.

Auto Home Expiry Time

Options: 10 - 600 seconds

Default: 60 seconds

The Auto Home Expiry Time is the time (in seconds) that the ADPRO FastTx will wait, after the last PTZ command, before sending the PTZ camera station to pre-position 1.

Note: Any queued preset request occurring during the period the ADPRO FastTx is in setup mode will be cancelled. An alert will still be sent to ADPRO VideoCentral, but image information will not be available.

Note: During the Preset on Alarm function, images could appear dark and/or blurry, possibly causing ADPRO FastTx to interpret this as low contrast, and generating a low contrast alarm.

Activity Detection Tab

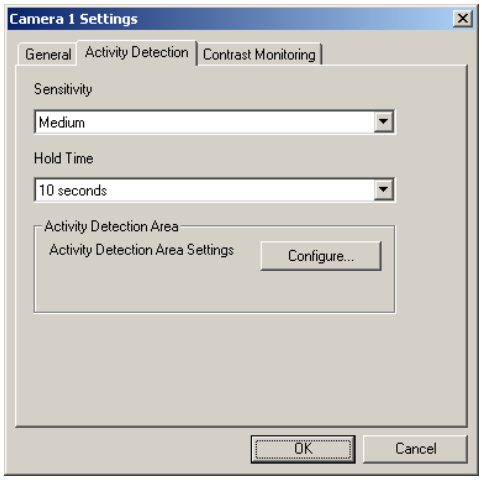

Figure 75: Camera Settings - Activity Detection Tab

Sensitivity

Options: Very Low, Low, Medium, High, Very High

Default: Medium

Set the required sensitivity of the system. The Sensitivity setting defines a cross section of a target objects size and speed required to trigger an Activity event. Settings are Very Low (requires large objects moving extended distances to trigger an event), Low, Medium, High and Very High (Activity events will be triggered by very small objects with limited movement).

Hold Time

Options: None, 2, 5, 10, 30, 60

Default: None

When there is a requirement that two (related) alarm inputs must be active before an alarm event is activated (known as double knock alarm activation), the **Hold Time** option sets the time 'window' for the second alarm input to occur (event combinations are defined in the **Operational Behaviour** section).

If the second alarm input is not activated within the Hold Time period, no alarm event will be generated. Choose the value most suited to the alarm activation requirement.

Activity Detection Area

Use the **Configure** button to set the **Activity Detection Area** used by each configured camera. The detection area is displayed as a 'grid' over the video image, showing exactly where activity detection will happen. More than one activity detection area can be used. An Activity Detection Area is made up of a number of 'detection zones', with each zone representing a screen area of 16 x 16 pixels.

When the option is selected a display of the selected camera's image is shown.

Toggle on or off the individual cells by moving the mouse pointer over the required cells and left-click the mouse. Cells can also be toggled by holding the left mouse button and dragging the mouse over the screen.

Cells are active (i.e. will be able to generate events) when they are highlighted and inactive when the highlight is removed.

Options available are:

- **Set All** - Places the maximum number of detection zones over the video image. All zones are active. The maximum number of zones for PAL systems is 396 zones (22 wide x 18 high), NTSC systems have 330 zones (22 wide by 15 high).
- **Clear All** - Removes all currently assigned zones. No zones are active.
- **Cancel** - Leave the currently assigned mask(s) and exit without changes.

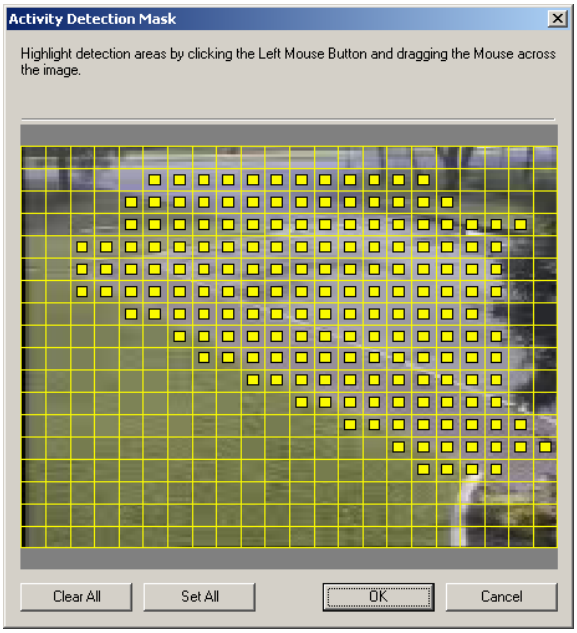
Activity Detection Mask
Highlight detection areas by clicking the Left Mouse Button and dragging the Mouse across the image.
Clear All
Set All
OK
Cancel

Figure 76: Activity Detection Mask

Contrast Monitoring Tab

The Contrast Monitoring feature is provided as a check that the contrast of the camera image is acceptable. The settings will allow detection of unusually low contrast levels.

The contrast monitoring in ADPRO FastTx monitors the contrast difference between the brightest part of the camera image and the darkest part of the camera image. If the contrast difference drops below the user defined threshold then an alarm can be generated.

A low contrast alarm will be generated for both the following situations:

- the camera is ‘bagged’ by placing an opaque material over the lens, causing the image to go dark
- the camera has a very bright light shone into the lens, causing the image to flare and ‘whiteout’

If the camera contrast level falls below this limit, then a contrast alarm event is generated. This event is setup via **Operational Behaviour / Camera Behaviour / Event Response / Dial out on invalid contrast.**

Note: During the Preset on Alarm function, images could appear dark and/or blurry, possibly causing ADPRO FastTx to interpret this as low contrast, and generate a low contrast alarm.

4.3.10 Monitor

A local monitor can be connected to the ADPRO FastTx and used to display a number of camera views in a sequence.

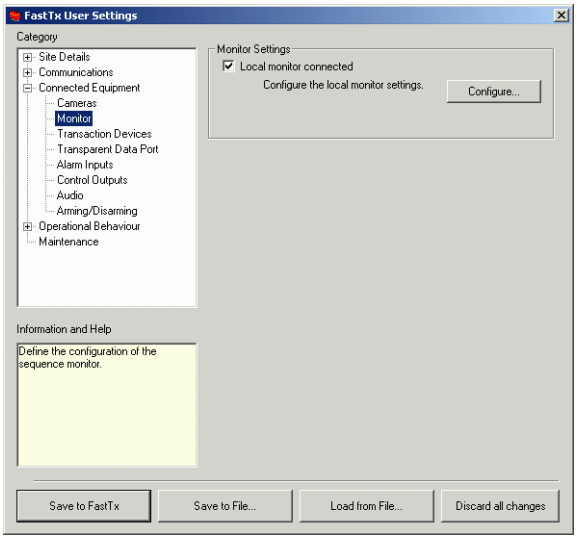

Figure 77: Monitor Menu

Monitor Settings

Set the **Local Monitor Connected** checkbox if a sequence monitor is to be used. Click the **Configure** button to setup the sequence.

Sequence List

The list defines the sequence (order) in which camera images are presented on the monitor. The sequence list can show up to 20 cameras and the checkbox next to the camera number will select that camera for inclusion.

Dwell Time

Options: Range 1 to 99

Factory Default: 2 seconds

Dwell Time is used to control the duration (in seconds) that a camera in the Sequence List is displayed on the monitor. The Sequence Time is common to all active channels and is defined as the duration a channel (camera) is displayed before switching to the next active channel. It can be set from 1 to 99 seconds.

4.3.11 Transaction Devices

The Transaction Interfacing option provides a mechanism to associate video data with EPOS/ ATM transactions. This enables users to view live transaction data synchronised to video.

Note: A Transaction Device Software License must be purchased to enable transaction device functionality. Licensing instructions are provided with the purchase of a licence (refer to *Licensing* on page 57).

A Transaction Device (for example an ATM or EPOS terminal) can be connected to the ADPRO FastTx via one of the GP Serial ports or Ethernet port. Up to sixteen transaction devices can be configured.

Note: Please contact your nearest Xtralis office for details of supported equipment.

For information on how to set up a transaction device, please refer to the Transaction Device Software Programmers Manual (document number 11620_01) available on the website - **www.xtralis.com/adpro**.

4.3.12 Transparent Data Port

ADPRO FastTx supports transparent RS232 data transmission to/from ADPRO VideoCentral. The port labelled DATA on the rear of the unit is the port used for this connection. This functionality provides the capability to transfer an RS232 data stream from the ADPRO FastTx unit to ADPRO VideoCentral, and vice-versa. This type of capability may be useful to support a camera station that is not listed in the supported list for ADPRO FastTx, or controlling some other industrial equipment at the remote site.

If a ADPRO VideoCentral user connects to a ADPRO FastTx with transparent data enabled, the serial port is reserved exclusively for use by that user. Until that user disconnects, no other user can access transparent data.

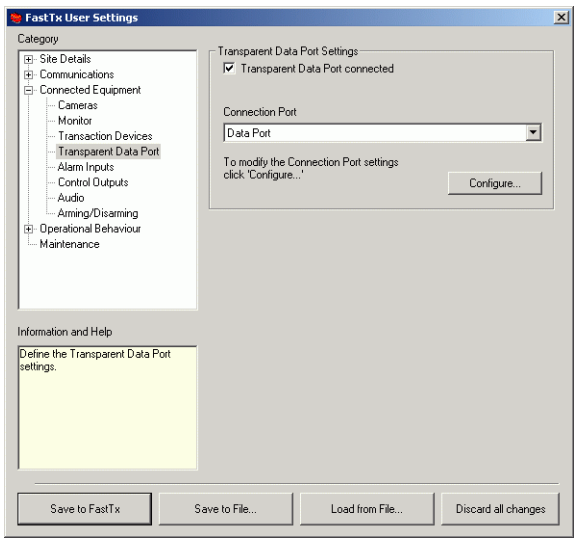

Figure 78: Transparent Data Port Menu

To enable the Transparent Data Port check the **Transparent Data Port Connected** option.

Note: ADPRO VideoCentral also requires configuration changes for this functionality (**Database** / **Administration** / **Configure Transparent Data Port**).

The Connection Port drop down list displays the Data Port that is currently allocated in the ADPRO FastTx system. Select the **Configure …** button and the following dialog is displayed.

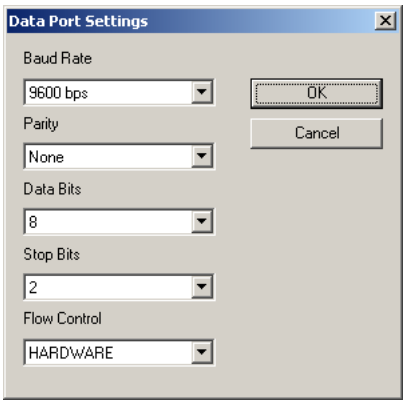

Figure 79: Transparent Data Port Settings

Baud Rate

Options: 1200 bps, 2400 bps, 9600 bps, 19200 bps, 38400 bps, 57600 bps

Default: 9600 bps

When configuring the transparent data port, the Baud Rate setting determines the speed that data will be transferred between the ADPRO FastTx and the RS232 device.

Parity

Options: None, Odd, Even

Default: None

Sets the Parity used when transferring data locally between the transparent data port and the RS232 device.

Data Bits

Options: 5, 6, 7, 8

Default: 8

Sets the number of Data Bits used to transfer data between the transparent data port and the RS232 device.

Stop Bits

Options: 1, 2

Default: 2

Sets the number of Stop Bits used to transfer data between the transparent data port and the RS232 device.

Flow Control

Options: Hardware, None

Default: Hardware

Sets the type of Flow Control used to transfer data between the transparent data port and the RS232 device.

4.3.13 Alarm Inputs

The **Alarm Inputs** option defines a number of parameters about the type and operation of the alarm inputs connected to the ADPRO FastTx. The number of alarm inputs available will depend on the ADPRO FastTx Model number.

Select the Alarm Input number from the displayed list. The status of an Alarm Input is shown by a small icon to the left of the channel number.

- An Alarm Input is unallocated when no name is shown next to the number.

Figure 80: Unallocated Icon

- The **Connect** button is used to enable an Alarm Input. A green tick is shown and details can be modified.
- To disable the use of an Alarm Input, the **Disconnect** button is used and a red cross is shown. For example, set Disconnect if maintenance is being performed in that area or the sensor is being replaced.

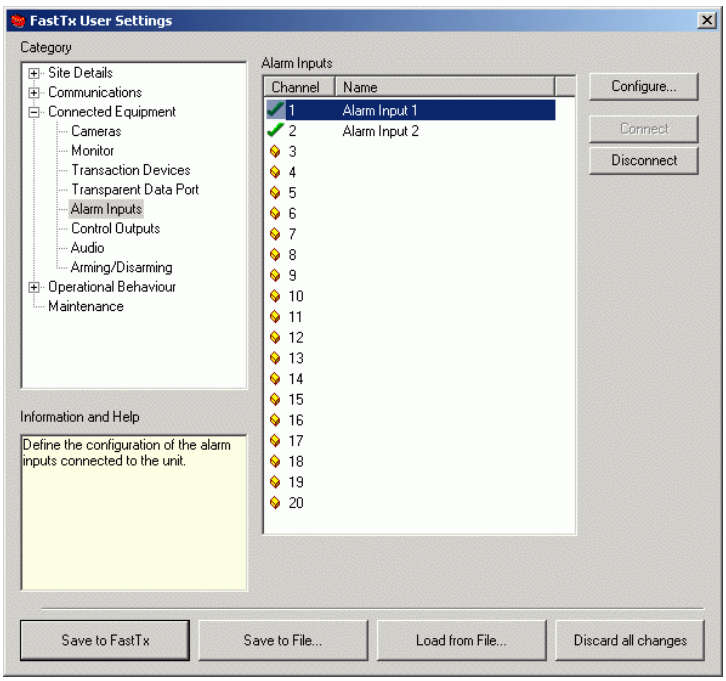

Figure 81: Alarm Contacts List

Alarm Input Settings

When the **Configure** button is used, changes to the **Alarm Input Settings** can be made.

Alarm Input Name

Option: 16 characters maximum.

Enter the name to be associated with this Alarm Input.

Alarm Input Type

Options: Normally Open (N/O), Normally Closed (N/C), N/O SEOL, N/C SEOL, N/O DEOL, N/C DEOL

Default: Normally Open

The ADPRO FastTx can be programmed to trigger an alarm when the contacts associated with a channel change state. This may be when:

- a normally closed contact changes its state to open, or
- a normally open contact changes to close

The alarm inputs may be supervised to detect tamper (attempting to override the alarm contacts by a cut or short) with either a SEOL (Single End of Line) or a DEOL (Dual End of Line) wiring hierarchy in conjunction with N/O or N/C sensor contacts.

Depending on the alarm wiring strategy, SEOL termination is used to detect either a short circuit on a line or on an open circuit, while DEOL is used to detect both short and open circuit conditions.

Hold Time

Options: When active, 2 sec, 5 sec, 10 sec, 30 sec, 60 sec.

Factory Default: 10 seconds

When there is a requirement that two (related) alarm inputs must be active before an alarm event is activated (known as double knock alarm activation), the **Hold Time** option sets the time 'window' for the second alarm input to occur. Event combinations are defined in the **Operational Behaviour** section.

If the second alarm input is not activated within the Hold Time period, no alarm event will be generated. Choose the value most suited to the alarm activation requirement.

Note: If the alarm input activates multiple times within the hold time period, only the first alarm will be reported to the CMS.

Camera View Style for the Triggered Alarm

Options: Live, Quad, Duress.

Factory Default: Quad

When an alarm is triggered by these contacts, the style of display configuration shown on ADPRO VideoCentral can be preset.

Note: Stored alarm images are only associated with Quad and Duress alarm types.

The **Live** option is primarily designed for use with access (entry/exit) points. A live video feed is displayed at ADPRO VideoCentral.

The **Quad** option captures three alarm images in a pre-defined period (defined under **Camera Settings/General** tab) and displays the images at ADPRO VideoCentral, along with a fourth pane which sequences through the three images to highlight movement.

The **Duress** option is designed to be used with silent panic alarms and will cause a **Live and Quad** alarm to be sent to ADPRO VideoCentral. The Live alarm enables an event to be quickly displayed at the CMS and the Quad alarm ensures that video is captured at the instant the panic alarm is operated.

4.3.14 Presidium Inputs

The **Presidium Inputs** option enables the configuration of video outputs from a Presidium Intelligent Video System to the ADPRO FastTx video inputs.

Note: At least one Presidium Input must be configured. If there are no inputs configured, the following Presidium system alarms will not work at the ADPRO FastTx:

- Presidium Operational
- Tamper alert
- Over Temperature
- Communication to Presidium Lost
- Communication to Presidium Resumed
- Presidium Fault

Note: When connecting a ADPRO FastTx to a Presidium, each ADPRO FastTx video input must be directly connected to a Presidium video output. Hence, if the Presidium has 20 channels, a 20 channel ADPRO FastTx is required to operate all 20 channels.

Select the Presidium Input number from the displayed list. The status of an Presidium Input is shown by a small icon to the left of the channel number.

- A Presidium Input is unallocated when no name is shown next to the number.

Figure 82: Unallocated Icon

- The **Connect** button is used to enable an Alarm Input. A green tick is shown and details can be modified.

To disable the use of an Alarm Input, the **Disconnect** button is used and a red cross is shown. For example, set Disconnect if maintenance is being performed in that area or the sensor is being replaced.

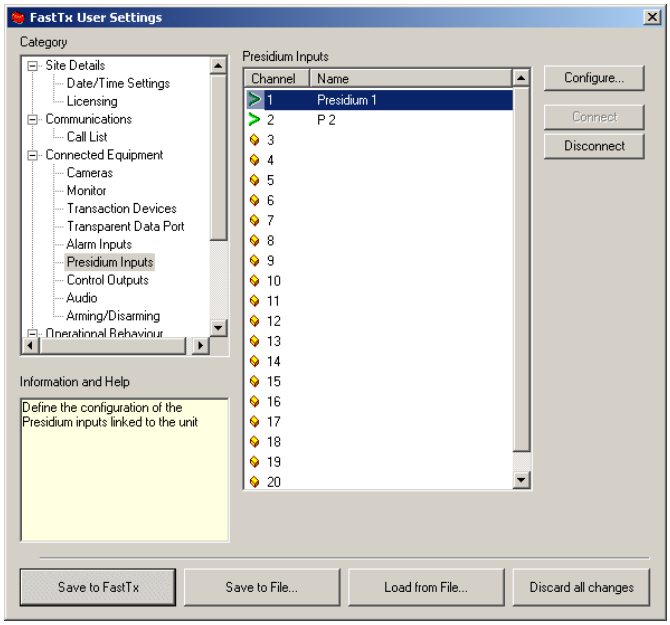

Figure 83: Presidium Inputs List

Presidium Input Settings

Select the **Configure** button to setup the Presidium Inputs.

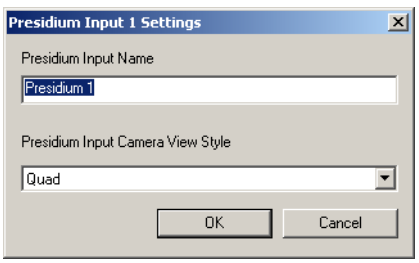

Figure 84: Presidium Input Settings

Presidium Input Name

Option: 16 characters maximum.

Enter the name to be associated with this Presidium Input.

Presidium Input Camera View Style

Options: Live, Quad

Factory Default: Quad

When an alarm is triggered by these contacts, the style of display configuration shown on ADPRO VideoCentral can be preset.

The **Live** option is primarily designed for use with access (entry/exit) points. A live video feed is displayed at ADPRO VideoCentral.

The **Quad** option captures three alarm images in a user-defined period (defined under **Camera Settings/General** tab) and displays the images at ADPRO VideoCentral, along with a fourth pane which sequences through the three images to highlight movement.

4.3.15 Control Outputs

The **Control Outputs** option defines a number of parameters about the type and operation of the output circuits connected to the ADPRO FastTx. The outputs are 'open collector' transistor circuits used to generate a control signal (upon activation of an alarm) to activate third-party equipment at the remote site, for example a boom gate controller or a floodlight control device.

Select the control output number from the displayed list. The number of control outputs available depends on the ADPRO FastTx Model number. The status of a control output is shown by a small icon to the left of the channel number.

- A control output is **free** when the 'empty' icon is shown next to the number
- The **Connect** button is used to enable a control output. A green tick is shown and details can be modified
- To temporarily disable the use of a control output, the **Disconnect** button is used and a red cross is shown. For example, set Disconnect if maintenance is being performed on the unit under control.

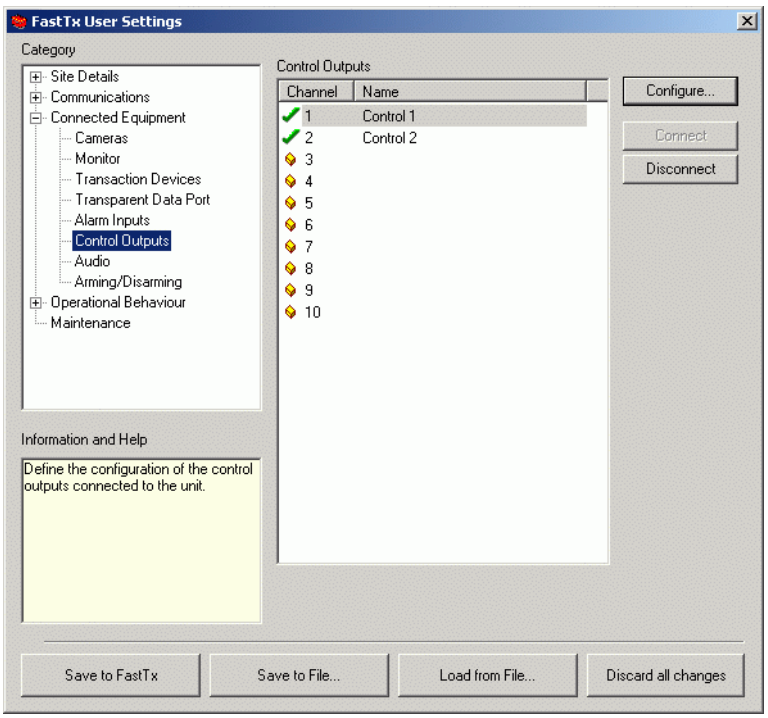

Figure 85: Control Output Settings Menu

Control Output Settings

When the **Configure** button is used, the following settings can be made.

Control Output Name

Option: 16 characters maximum.

Enter the 16 character name to associate with this output. The name can be displayed when viewing video from a camera input associated with this control output.

Default State

Option: Normally Open, Normally Closed

Default: Normally Open

Defines the state of the control output when it is not being driven by an alarm condition or controlled remotely.

When set for 'normally closed', the control output is shorted to ground via the output transistor.

Manual Operation

The control outputs can either be operated by an operator at ADPRO VideoCentral or linked to an alarm condition. Select this box if the ADPRO VideoCentral operator is to control the output.

Note: This option must be set to allow remote users access to the control output function.

Disconnect Operation

Option: Reset, Latch

Default: Reset

Defines the operational state of the control output after a user has disconnected from the ADPRO FastTx.

- the **Reset** option returns the output to the condition defined by the *Default State*.
- the **Latch** option causes the control output to remain in its current (operated) condition.

4.3.16 Audio

The **Audio** menu configures the ADPRO FastTx audio channel features.

ADPRO FastTx supports combined video and audio operation over communication links that have a minimum data throughput of 14.4 kbps. This provides simultaneous video and audio operation, with an audio bandwidth of 300 Hz-3 kHz, over standard public switched telephone networks (PSTN) as well as high speed digital networks.

Note: Although ADPRO FastTx always passes audio at the maximum possible bandwidth, the overall audio quality will ultimately depend on the quality of the microphones and speakers connected to the ADPRO FastTx and the level of background noise in the environment. Tests should always be performed with the desired audio equipment to obtain an understanding of the audio performance.

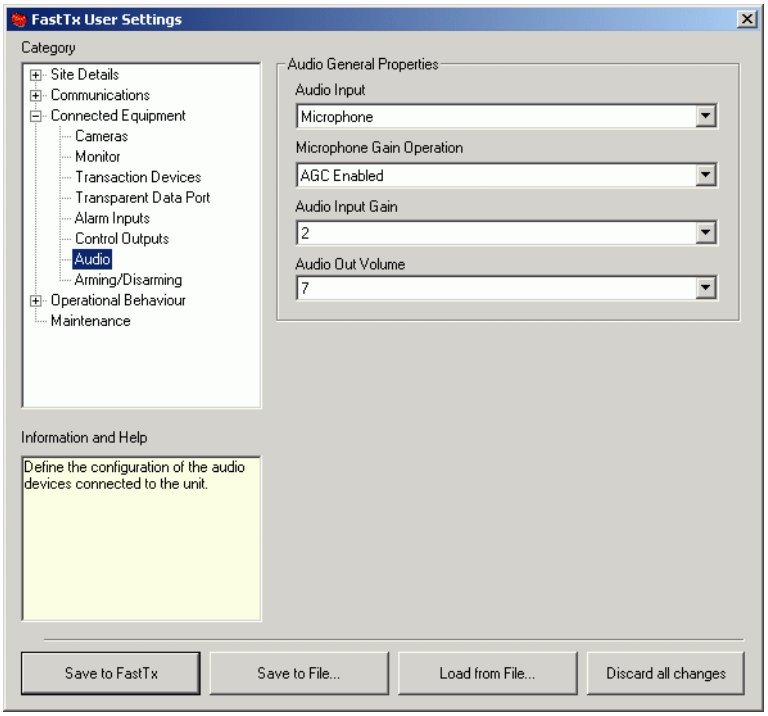

Figure 86: Audio Settings

Audio General Properties

Audio Input

Options: Microphone, Line Input, Switcher

Default: Microphone

Select the type of audio input device connected to the ADPRO FastTx unit. Refer to *Audio* on page 31 for details of the hardware connector. Note that only one audio input type can be used, i.e. multiple audio inputs cannot be used simultaneously.

Microphone Gain Operation

Options: AGC Enabled, AGC Disabled

Default: AGC Enabled

Select either AGC Enabled (Automatic Gain Control) or AGC Disabled. This option is only activated when Microphone operation is selected under the Audio Input setting.

AGC is typically used in a more controlled noise environment, such as a Control Room or office, where only a small amount of background noise is present.

Audio Input Gain

Options: Range 0 to 15

Factory Default: 2

Select a Gain level to apply to audio coming into the ADPRO FastTx unit (from local microphones).

Audio Out Volume

Options: Range 0 to 15

Factory Default: 2

Choose a volume level between 0 (lowest) and 15 (highest) to suit the operational environment.

4.3.17 Arming / Disarming

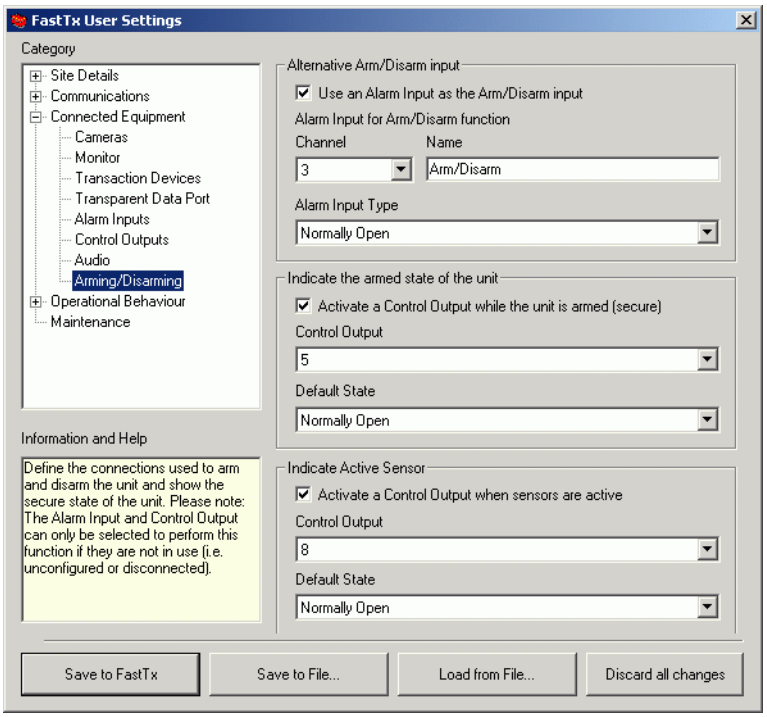

Figure 87: Arming/Disarming Menu

The Arm/Disarm properties allow a user to configure the Arm/Disarm Tamper Protection settings and Arm/Disarm Local Indication features of ADPRO FastTx.

Alternative Arm/Disarm Input

This setting allows an unused alarm input to be configured as the access / secure (arm / disarm) input on the ADPRO FastTx. This provides a tamper detected access / secure input as required in the BS8418 regulations.

Whenever a tamper has occurred on the Arm/Disarm point, the ADPRO FastTx will initiate a Dial Out and generate a tamper event. Once connected to ADPRO VideoCentral, the tamper event is sent. This event will be identifiable as a tamper event on the Arming Device.

To configure:

Use an Alarm Input as the Arm / Disarm input: Check this box if using this feature.

Channel: Select an unused alarm input for the access / secure input from the drop-down list. The alarm input will be marked as not-usable in the alarm input configuration.

Name: Type a name for the alternative access / secure input.

Alarm Input Type: Select the type of alarm input. The types available are the same as for a normal alarm input: Either Normally Open or Normally Closed (no end of line resistors) or combinations of Normally Open or Normally Closed with either Single or Dual End Of Line resistors for Tamper detection (SEOL / DEOL).

Note: The alarm input must not already be configured for use.
Once an alarm input is configured as the Arm/Disarm input, it is no longer available to be used as a standard alarm input, and the Access/Secure input will cease to operate.

Alarm Input State / Alarm Input Type Setting	Open Circuit	Closed Circuit	Low Impedance	High Impedance
Normally Open (NO)	Disarmed	Armed	N/A	N/A
Normally Closed (NC)	Armed	Disarmed	N/A	N/A
SEOL NO	Tamper Alert	Armed	Disarmed	N/A
SEOL NC	Armed	Tamper Alert	Disarmed	N/A
DEOL NO	Tamper Alert	Tamper Alert	Armed	Disarmed
DEOL NC	Tamper Alert	Tamper Alert	Disarmed	Armed

Table 11: Arm/Disarm Alarm Input States

Indicate the Armed State of the Unit

This setting allows an unused control output to be activated when the unit is armed. This output could then be linked to a local indicator such as a light, to show the armed state of the unit.

To configure:

Activate a Control Output while the unit is armed (secure): Check this box to enable the feature.

Control Output: Select an unused control output for the output function from the drop-down list. The control output will be marked as not-usable in the control output configuration.

Default State: This defines the state of the output when the unit is disarmed, either normally open or normally closed.

Note: The control output must not already be configured for use. Once a control output is configured for local indication, it is no longer available to be used as a standard control output.

Indicate Active Sensor

This setting allows an unused control output to be activated when any configured sensor is active, i.e. alarm input or activity detection. This alerts the user to any problem prior to arming the system. This output could then be linked to a local indicator such as a light, to show the local user if there are any active sensors.

To configure:

Activate a Control Output when sensors are active: Check this box to enable the feature.

Control Output: Select an unused control output for the output function from the drop-down list. The control output will be marked as not-usable in the control output configuration.

Default State: This defines the state of the output when there are no active sensors, either normally open or normally closed.

Note: The control output must not already be configured for use. Once a control output is configured to indicate the active sensor, it is no longer available to be used as a standard control output.

Note: An active detector will NOT prevent the ADPRO FastTx from being armed.

Note: The time interval that the control output is active for includes the detector(s) hold times, and as such represents the system software transitions rather than the actual underlying time the sensor is in the active state. For example, if an alarm input is physically activated for 5 seconds and the alarm input has been programmed for a 10 second hold time, the Indicate Active Sensors Control Output will be active for 15 seconds.

4.3.18 Operational Behaviour

The Operational Behaviour section and settings defines how the system operates overall and how different elements of the system relate, such as alarm inputs to camera views etc.

4.3.19 Operational Modes

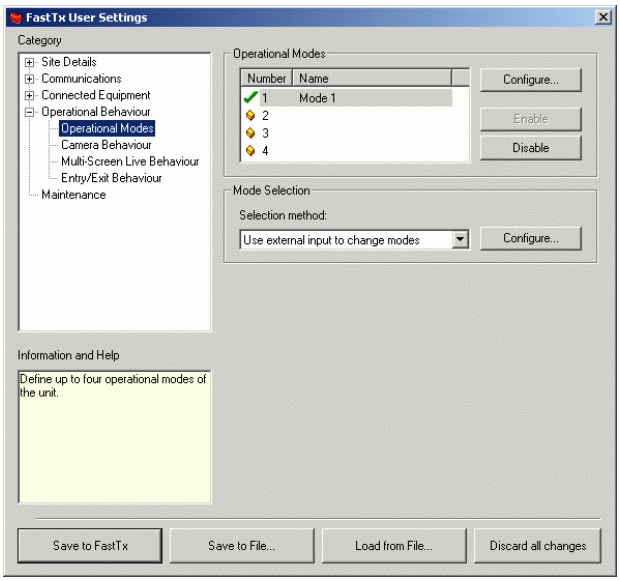

Figure 88: Operational Modes Menu

Up to four different modes can be programmed into the system. Numerous different operational characteristics can be changed within the different modes such as:

- Quality of images being transmitted for individual cameras.
- Event triggers associated with cameras.
- When a camera will dial an alarm out to the CMS.

Note: The modes are defined in the following sections (Camera Behaviour etc).

Any previously entered mode names will appear next to an assigned number. To name a new mode or change the name of a mode, highlight the **Number** and use the **Configure** button to open the **Mode Properties** dialog box.

Mode Name

Options: <*name*> Maximum 16 characters

Enter a descriptive name for this mode.

Mode Selection

Options: Use External Input, Use Calendar

Default: Use External Input

Note: The choice of a Mode Selection Method will apply to ALL modes.

Use the **Selection Method** drop-down box to determine how the modes will be changed (either via an input change or by day / time calendar selection) and press the **Configure…** button to define the operation.

The **Use External Input to Change Modes** option is used to configure switching between two modes via the use of the **Mode Select Input** on the rear panel of the unit (Pin 9 of the General I/O connector). Of the four available modes, any two can be assigned. For example, Mode 2 is assigned to an Open input and Mode 3 to a Closed input. When the **Mode Select Input** pin changes state, so does the operational mode of the ADPRO FastTx between Mode 2 and Mode 3. For example, an alarm panel that latches an output contact state when setting and unsetting the system may provide the contact change. In this instance the operational modes of the ADPRO FastTx system would follow the status of the Alarm panel.

Use the **Configure** button to open the **Input Mode Selection** dialog box and choose which Mode is to be assigned when the contact is Open and another Mode for assignment to a Closed contact condition.

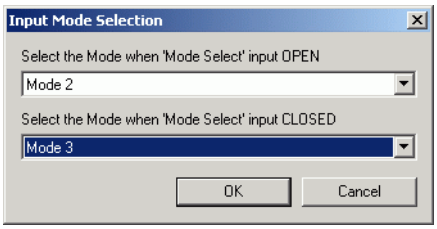

Figure 89: Changing Modes Via an Input

Alternatively, the **Specify Mode Changes in a Calendar** option can be selected when users require access to different modes on a time schedule basis. This option provides a timetable, using time blocks of 15 minutes duration, to assign different modes to individual time blocks, or groups of blocks, to provide the ADPRO FastTx with a great degree of operational flexibility.

Use the **Configure** button to open the **Mode Calendar Settings** dialog box.

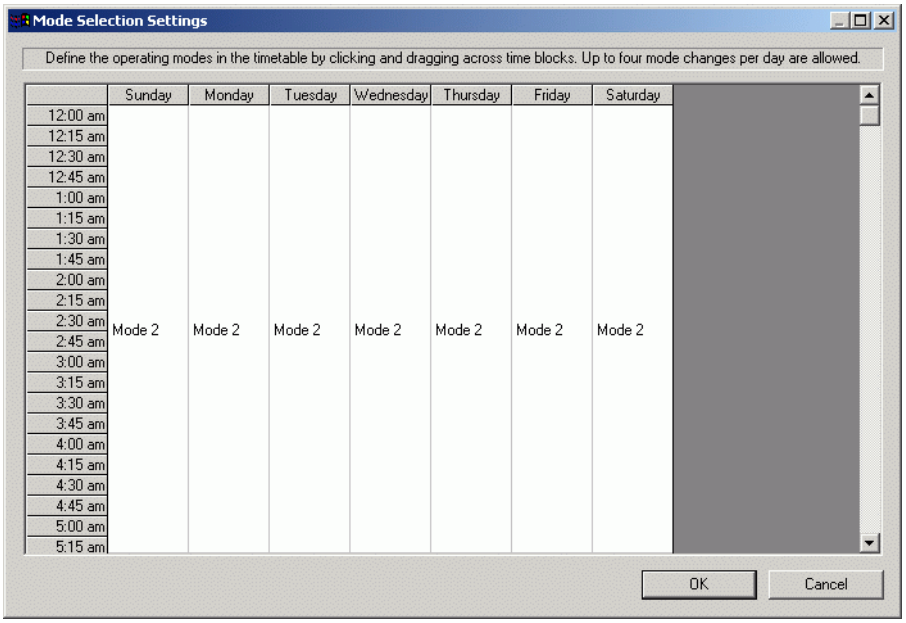

Figure 90: Changing Modes Via Calendar

Note that this calendar uses days and not dates, therefore it is not possible to set specific operations for particular dates such as Christmas or New Year.

Highlight a block within the calendar (this can spread across days as well as times) to be changed by placing the mouse pointer within the calendar, holding down the left mouse button and then dragging the pointer. Upon releasing the mouse button a dialog box is presented with a drop-down selection box providing the options of the various modes (mode names must have been pre-configured).

4.3.20 Camera Behaviour

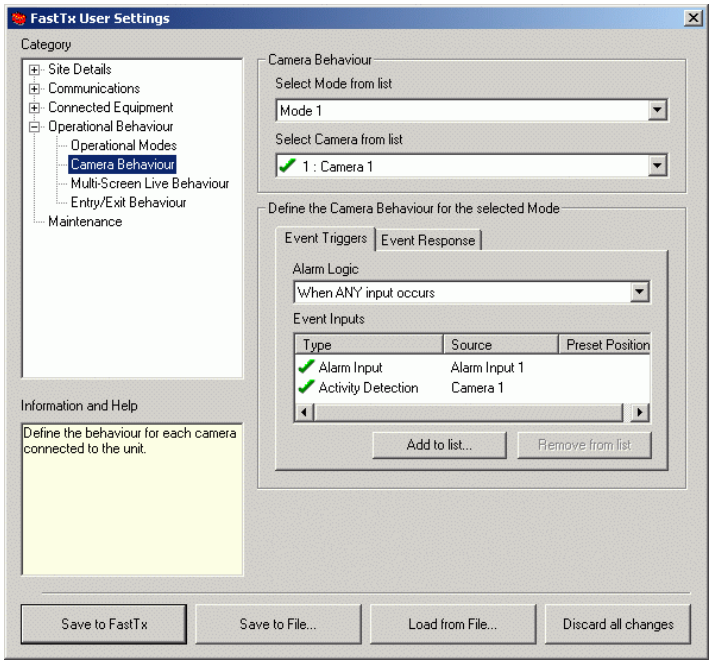

Figure 91: Camera Behaviour Menu

For each camera, the operation for each of the modes needs to be defined (i.e. up to four lots of settings for each camera).

For each Mode / Camera combination, there are two lots of settings that require configuration:

Event Triggers: Defines what will trigger this camera channel for the purpose of triggering an alarm call to the CMS.

Event Response: Defines what actions the ADPRO FastTx system will take if an alarm is triggered on this camera channel during the currently selected Mode.

Use the **Select Mode from List** option to choose which Mode is to be configured, then choose the camera to configure from **Select Camera from List**. Cameras that have been previously configured via **Connected Equipment** / **Cameras**, will have their name displayed in this list.

Event Triggers

Users can choose from two triggering methods to select how a channel is activated for an alarm event.

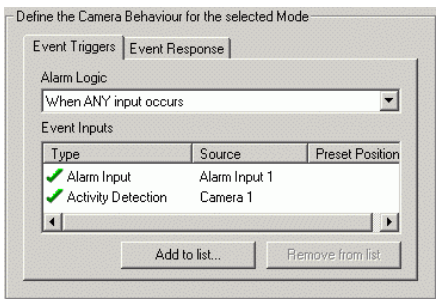

Figure 92: Event Trigger Settings

Alarm Logic

The **Alarm Logic** option is used to set up the logical order in which Alarm Inputs are treated before an alarm event is declared to be 'valid'.

Up to ten detectors can be associated with any one camera.

Options: When ANY input occurs, Only when ALL inputs occur

Default: When ANY input occurs

From the drop-down list, select whether this camera will be triggered when ANY of the inputs are triggered (i.e. any one of the events defined in the list below will cause an Event reaction within ADPRO FastTx) or when ALL inputs are triggered (i.e. when all inputs are triggered simultaneously). When the ALL option is selected, the Hold Time for the various inputs as previously defined (in **Connected Equipment** / **Alarm Inputs**) will also be used.

Event Inputs

For the **Alarm Logic** to operate, one or more Event Inputs must be assigned. Use the **Add to list** button to display the Event Input Settings dialog.

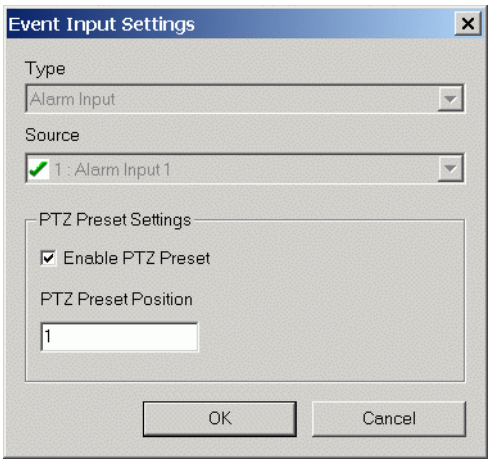

Figure 93: Event Input Settings

Up to 10 different Event Inputs and associated presets can be configured for each camera in the currently selected Mode.

Select the type of Event Input (either Alarm Input, Activity Detection or Transaction Device) and the **Source** (the Alarm Input Channel or Video Channel in the case of Activity Detection). Note that any alarm input or activity detection on any camera channel can be used to trigger any camera on the system.

The **Source** for an Event Input is defined by the settings in **Connected Equipment** / **Alarm Inputs** (refer to *Alarm Inputs* on page 81).

Transaction devices are defined in **Connected Equipment / Transaction Devices** (refer to *Transaction Devices* on page 78).

Caution: If a camera has an associated Alarm Input and the Alarm Input is triggered whilst the camera is in the no video state, then no alarms are reported via dial out.

PTZ Preset Settings

Options: 1 - 99

Default: 1

If the camera is a PTZ camera, then Presets on Alarm can be used. For each event input, a camera preset can be configured. The event input can be Alarm Input, Activity Detection or Transaction Device, but it is not possible to assign presets on a PTZ camera for activity detection occurring on the same camera.

The PTZ Preset Settings will be unavailable if the **Type** is set to Activity Detection, and the **Source** is an associating PTZ camera station. If the user attempts to use Activity Detection on a PTZ camera, the following warning message will be presented.

Event Input Settings
Illegal operation: Using VMD from a PTZ camera to generate an alarm on the same camera is not allowed.
OK

Figure 94: Event Input Settings - Programming Error

Video Motion Detection (VMD) from a PTZ-equipped camera can specify a preset position when used as an event trigger for another PTZ-equipped camera, however, since this is not normally desired behaviour the following warning message will be displayed.

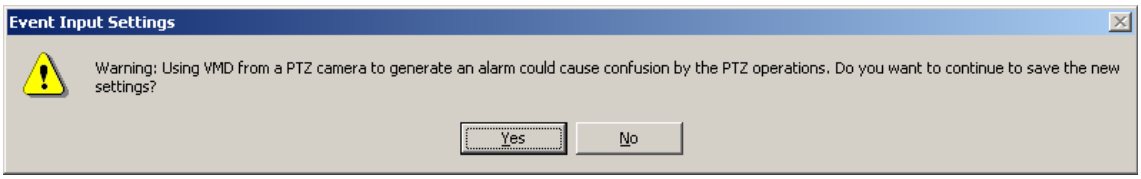
Event Input Settings
Warning: Using VMD from a PTZ camera to generate an alarm could cause confusion by the PTZ operations. Do you want to continue to save the new settings?
Yes
No

Figure 95: Event Input Settings Warning

VMD from a fixed camera (non PTZ-equipped) can specify a preset position when used as an event trigger for a PTZ-equipped camera.

For a PTZ-equipped camera, the setup interface will not enforce that all triggers specify a preset position; it is acceptable that for some PTZ-equipped cameras the user may wish not to specify any presets. No warnings will be displayed in these configurations.

If using the **Only When ALL Inputs Occur** logic, only the first pre-set on the list will be active. If another Alarm Input is configured for the same PTZ camera, its preset will not be available, and will be displayed with an (N/A) beside the Preset Position.

Note: Please refer to PTZ Tech Tips for connection and setup information on the website - **www.xtralis.com/adpro**.

Editing a Detector's Preset

To edit a detector's preset:

- Double click the event input to be modified. The Event Input Settings dialog box is displayed.

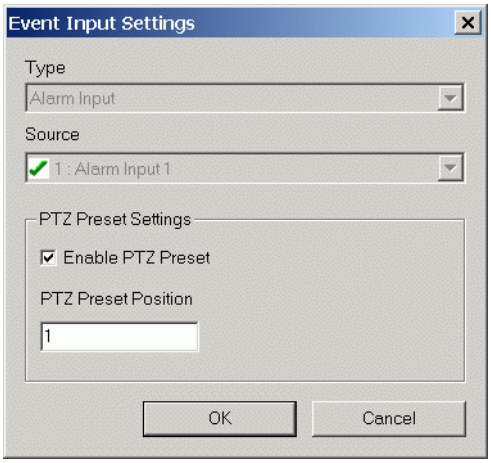

Figure 96: Event Input Settings

- The Type and Source selections are greyed out, enabling the operator to only change the PTZ Preset Settings.
- Enter the appropriate settings and click **OK**.

Event Response

Once an Event has been declared, the **Event Response** settings are used to define the actions that will be taken in response to the Event.

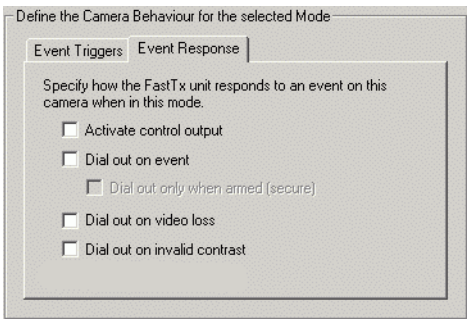
Define the Camera Behaviour for the selected Mode
Event Triggers
Event Response
Specify how the FastTx unit responds to an event on this camera when in this mode.
Activate control output
Dial out on event
Dial out only when armed (secure)
Dial out on video loss
Dial out on invalid contrast

Figure 97: Event Response Tab

Activate Control Output

When checked, the control output correlating to the camera channel number currently being programmed will be activated for a period as defined in the **Alarm Input** / **Hold Time** (refer to *Alarm Input Settings* on page 81) upon full activation of an event. Refer to *Control Outputs* on page 85.

Note: If the assigned Control Output number has been specified for **Manual Operation**, then an error message will be displayed.

Dial Out on Event

When checked, an Event on this camera channel will cause the ADPRO FastTx system to send an alert with details of the event to the CMS, following the rules previously defined in **Communications** / **Call List**.

Dial Out Only When Armed (Secure): Unchecking this setting can be used to override the Armed / Disarmed status of the system for this particular camera in this particular mode, effectively creating a 24-hour zone (i.e. can be used for Panic Buttons etc).

Important: Use extreme caution when using this setting in conjunction with Activity Detection triggered events, as this can cause many false / nuisance alarms and block access to programming.

Dial Out on Video Loss

Options: Yes, No

Factory Default: Yes

When checked, ADPRO FastTx will dial-out, sending an alert to the CMS, in the event of lost video on this camera channel due to camera disconnection or output failure. Note that this operation is looking for presence of video by the Sync Pulse - this is not a Contrast (or 'Black-bag') alarm.

Dial Out on Invalid Contrast

Options: Yes, No

Factory Default: No

Select the **Dial out on invalid contrast** checkbox if operators are to be notified if a Contrast Alarm condition occurs on this camera. A contrast alarm will occur if the camera contrast level changes to a level that lies outside of a user definable range.

4.3.21 Multi-Screen Live Behaviour

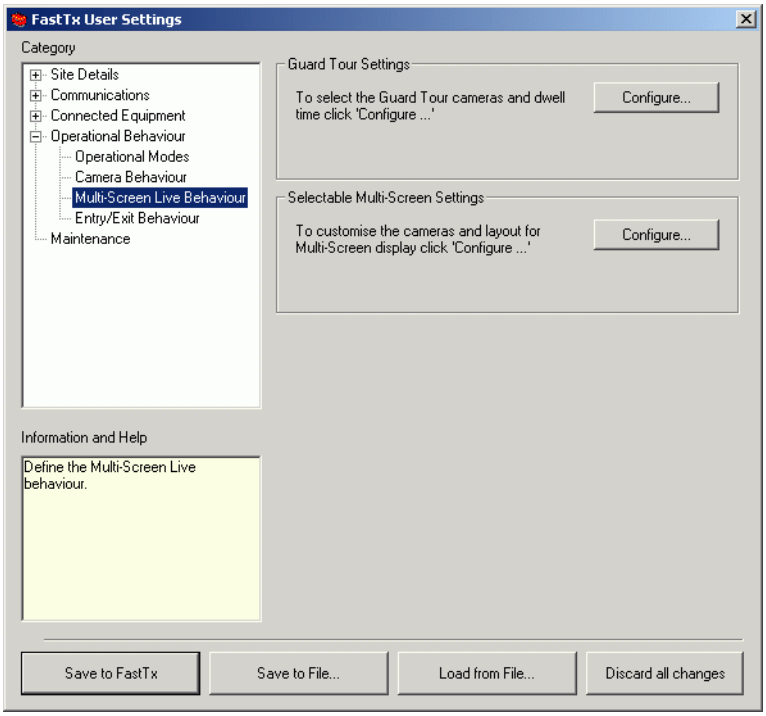

Figure 98: Multi-Screen Live Behaviour Menu

This feature allows the user to view multiple channels in Live Mode simultaneously, in preset configurations.

The ADPRO FastTx will only allow one connected user to use Multi-Screen functionality at any one time.

All other users (connected currently or in the future) will not be able to access Multi-Screen as long as the functionality is reserved by another user, unless their privilege level is higher than that of the connected user.

For a connected user to release the Multi-Screen functionality, the user has to:

- select any video mode other than Multi-Screen (this includes Pause),
- disconnect, or
- lose it to a more privileged user.

The highest privilege level is CMS Operator. All connected users will receive a notification when the Multi-Screen Status changes.

Guard Tour Settings

Guard Tour operation provides a sequence through cameras programmed on the ADPRO FastTx unit. Depending on the display configuration (single screen or 4, 7, 9, 10, 13, 16 or 20 way split) the system will display all cameras and sequence through on the screen, or sets of cameras will be displayed. For instance if 16 cameras are configured for Guard Tour operation and a 4 way split is chosen, then the display will sequence through the first four cameras, then swap to the next four cameras.

To select which cameras are included in the Guard Tour click on the **Configure** button.

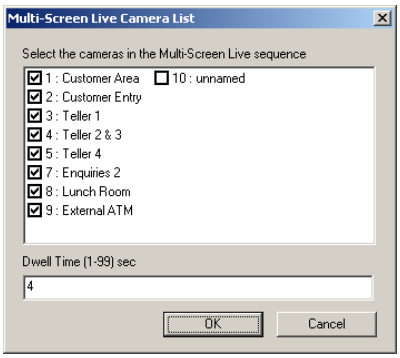

Figure 99: Guard Tour Camera List

Check the cameras needed in the Guard Tour and also enter a Dwell Time.

Selectable Multi-Screen Settings

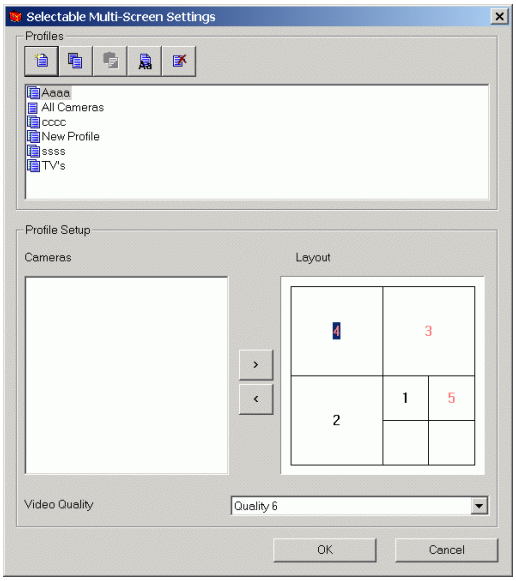

Figure 100: Selectable Multi-Screen Settings

The user can create and configure different Multi-Screen profiles according to their preferences.

The following screen splits are supported: Single Screen, 4-way, 7-way, 9-way, 10-way, 13-way, 16-way and 20-way.

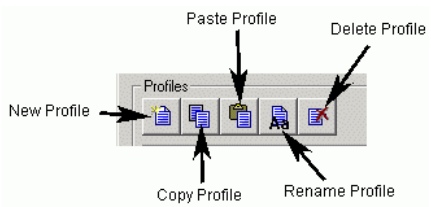

Figure 101: Multi-Screen Settings Buttons

Adding a New Profile

- Click the **New Profile** button.
- A new entry ‘New Profile’ will be added to the General Profiles listbox. If a profile with this name already exists, the name will be ‘New Profile <number>’.
- The cameras list box will show a list of all connected cameras (in numerical order), and Layout control will have the smallest split size. Video Quality value will default to ‘Same as Guard Tour’. For best update rates, quality 6 or lower is recommended.

Renaming an Existing Profile

- Select the profile.
- Single click the profile again (or press **F2**) to enable editing of the name.
- Cancel the changes by clicking **Esc** or accept the changes by clicking outside the name.

If the modified name matches an existing profile, a warning will be provided and changes will be discarded.

Renaming a profile is disabled for the default **All Cameras** profile.

Copy and Paste an Existing Profile

- Select the Profile.
- Click the **Copy Profile** button.
- Any time later (as long as nothing was placed in the Clipboard) click the **Paste Profile** button.

The copied entry will default to the name of the source profile and will need to be renamed immediately.

Deleting an Existing Profile

- Select the Profile.
- Click **Delete Profile** button.

Warning messages will popup asking for confirmation. If profile deletion is confirmed, the profile name will be removed from the list. The highlight will be moved to the profile name above. Deletion will be disabled for ‘All Cameras’ profile.

Adding a Camera from the Cameras Listbox to the Profile Layout Control

- Highlight the camera entry in the Cameras listbox.
- Click on the **[>]** button to add the selected camera to the layout.

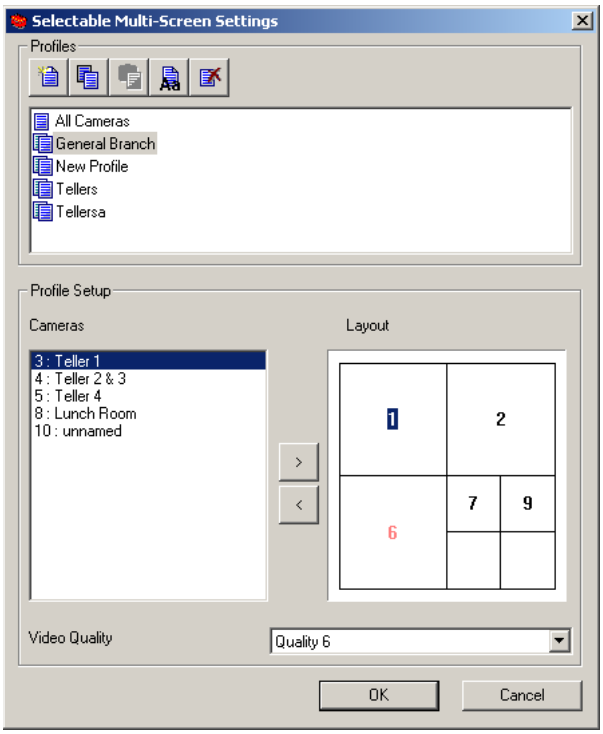

Figure 102: Selectable Multi-Screen Settings

As a result of this:

- The selected camera will be removed from the Cameras listbox
- The selected camera will be added to the Profile Layout.

If there are vacant spaces in the Layout, the camera will be placed in the first available space. Otherwise, the Layout Split Size will be changed to the next higher Split Size.

The order of cameras will be preserved.

Remove a Camera from the Profile Layout Control

- Highlight the camera entry in the Profile Layout control.
- Click on the **[<]** button to remove the selected camera from the layout.

As a result of this:

- The selected camera will be added to the Cameras listbox. The Cameras listbox will maintain numerical order of cameras.
- The selected camera will be removed from the Profile Layout control.

Layout control will shift the remaining cameras to fill the vacant place. If necessary, the Layout Split Size will be changed to the next lower Split Size. The ordering of cameras will be preserved.

Modifying a Profile Layout

The placement of cameras within the layout can be altered at any time using Drag and Drop operations.

This reshuffle will always involve two cameras swapping their placements, as Layout control will not allow a camera and a vacant place to swap locations.

4.3.22 Entry/Exit Behaviour

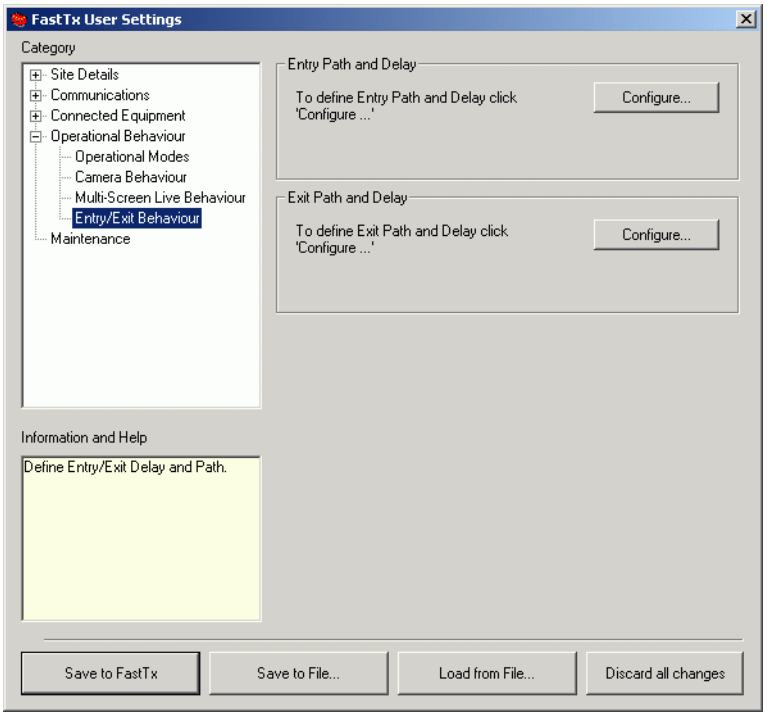

Figure 103: Entry Exit Behaviour

Entry/Exit Path

By specifying alarm inputs or Activity Detection channels as Entry/Exit Path Zones, users can define the route used to enter or exit an area protected by the ADPRO FastTx.

General rules for configuring alarm sources on Entry/Exit Paths when using ADPRO FastTx:

- An alarm input must be associated with a camera.
- Dial out on event must be enabled for that camera.
- Dial out only in secure must be enabled for that camera.
- An alarm input or camera must be associated with the Entry/Exit path.

Entry Path and Delay

On entering a site, alarms, and their associated images originating from the Entry Path Zones are held as pending. If the system is disarmed before the Entry Path Delay expires, they are discarded.

If the Entry Path Delay expires before the system is disarmed, then any Alarm Input or Activity Detection will be processed immediately.

Note that any other alarm originating from a zone that is not in the Entry Path Zones list, will be processed immediately. In this scenario, all pending alarms will also be processed immediately and the Entry Path Delay timer cancelled.

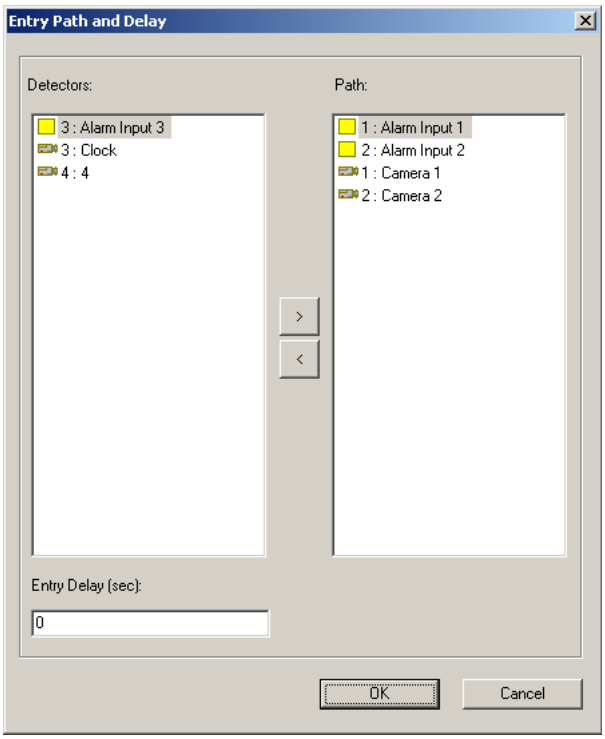

Figure 104: Entry Path and Delay Settings

Entry Path Zone(s) create a controlled route to a location where the Fast Trace can be disarmed. To create an Entry Path, a list of Entry Path Zones must be specified. Up to ten zones can be designated on the entry path.

Highlight the Alarm Input number or camera to be assigned to the Entry Path Zone in the left pane, and then use the arrows to add or remove the zones in the Path pane on the right.

The Entry Delay is the maximum time allowed (in seconds) from triggering the Entry Path to disarming the system before an alarm is generated.

Options: 0 - 300 seconds, where 0 disables the Entry Delay

Factory Default: 30 seconds

Specifying an Alarm Input on the Entry Path means that an alarm on this zone will start the Entry Path Delay timer.

Important: An Entry Path must be specified to activate the Entry Delay timer.

Exit Path and Delay

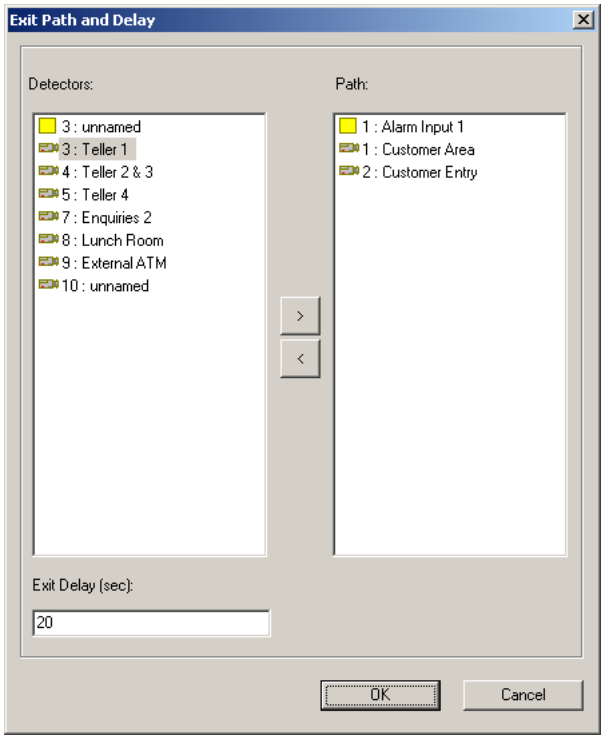

Figure 105: Exit Path and Delay Settings

When arming a site (i.e. set into the Secure Mode), alarms, and their associated images originating from the Exit Path Zones are ignored until the end of the Exit Path Delay period, allowing the user to exit the site.

Once the Exit Path Delay period expires, any Alarm Input will be processed immediately. In this scenario, all pending alarms will also be processed immediately and the Exit Path Delay timer cancelled.

Note that any other alarm originating from a zone that is not in the Exit Path Zones list, will be processed immediately.

Exit Path Zone(s) create a controlled route between the location where the Fast Trace can be Armed and an Exit Point. To create an Exit Path, a list of Exit Path Zones must be specified.

Up to ten zones can be designated on the Exit Path.

Highlight the Alarm Input number or camera to be assigned to the Exit Path Zone in the left pane, and then use the arrows to add or remove the zones in the Path pane on the right.

The Exit Delay is the maximum time allowed (in seconds) between arming the system and the reporting of alarms.

Options: 0 - 300 seconds, where 0 disables the Exit Delay

Factory Default: 30 seconds

4.3.23 Maintenance

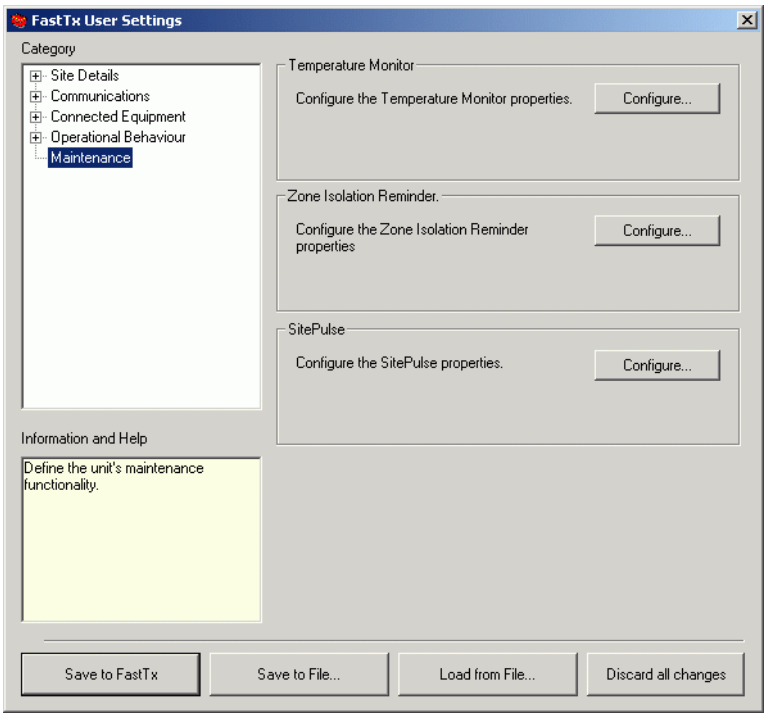

Figure 106: Maintenance Menu

The maintenance options available on ADPRO FastTx are:

- Temperature Monitor
- Zone Isolate Reminder
- SitePulse

Temperature Monitor

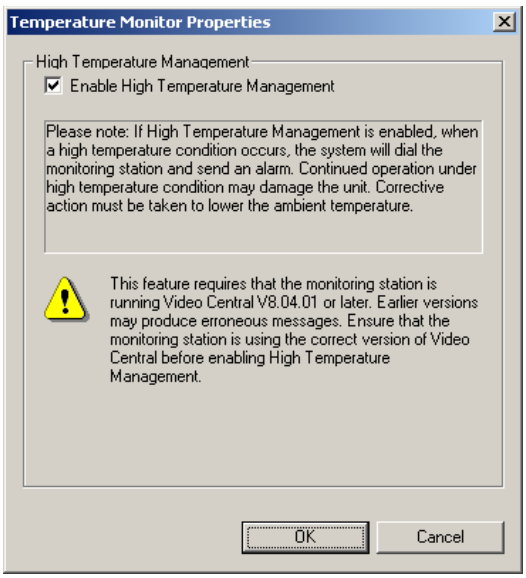
Temperature Monitor Properties
High Temperature Management
Enable High Temperature Management
Please note: If High Temperature Management is enabled, when a high temperature condition occurs, the system will dial the monitoring station and send an alarm. Continued operation under high temperature condition may damage the unit. Corrective action must be taken to lower the ambient temperature.
This feature requires that the monitoring station is running Video Central V8.04.01 or later. Earlier versions may produce erroneous messages. Ensure that the monitoring station is using the correct version of Video Central before enabling High Temperature Management.
OK
Cancel

Figure 107: Temperature Management

ADPRO FastTx monitors the internal temperature of the hard disk drives and has the option of dialling the CMS and generating an alarm if the temperature exceeds an upper limit of 65°C.

If High Temperature Management is Enabled

When the internal temperature of the ADPRO FastTx rises above the high temperature threshold, ADPRO FastTx will initiate an over-temperature condition and report this to ADPRO VideoCentral. The ADPRO FastTx fault relay will activate during the over-temperature condition. The ADPRO FastTx will continue to operate normally after reporting the over temperature condition but urgent action must be taken to ensure that the ambient temperature complies with ADPRO FastTx's 40°C maximum operating temperature specification. Continued operation at a temperature exceeding the specified maximum may damage or reduce the useable life of ADPRO FastTx.

When the temperature falls below the low temperature threshold, the over-temperature condition will be cleared and the fault relay will deactivate.

If High Temperature Management is Disabled

No over-temperature alarm will be received by ADPRO VideoCentral and the fault relay will not activate for an over-temperature condition.

Zone Isolate

The Zone Isolate feature allows a central monitoring station operator to prevent an alarm detector from generating alarms. This feature is useful in a number of scenarios:

- Commissioning a ADPRO FastTx
- Fault finding an installation
- Configuring detectors
- Disabling faulty detectors

Any ADPRO VideoCentral operator is able to view the current state of detectors on the connected ADPRO FastTx. However, only CMS operators can modify Zone Isolate status. Observers are locked out from any Zone Isolate capability.

The isolation status of a zone will persist after a reboot of the ADPRO FastTx, allowing the installer to rectify any detector problem before the detector is unisolated.

Zone Isolate Reminder

If zones are isolated on ADPRO FastTx, then a periodic reminder can be sent to ADPRO VideoCentral from ADPRO FastTx highlighting an operator to this fact.

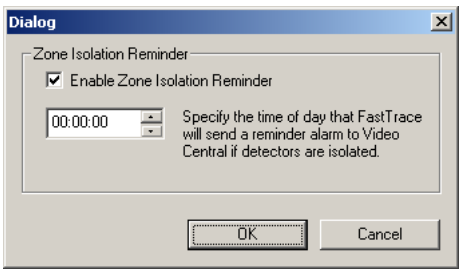
Dialog
Zone Isolation Reminder
Enable Zone Isolation Reminder
00:00:00
Specify the time of day that FastTrace will send a reminder alarm to Video Central if detectors are isolated.
OK
Cancel

Figure 108: Zone Isolate Reminder Settings

This will remind the operator that zones have been isolated and that they should be unisolated.

To enable this option, tick the check box, then enter an appropriate time to send the reminder to the CMS.

SitePulse

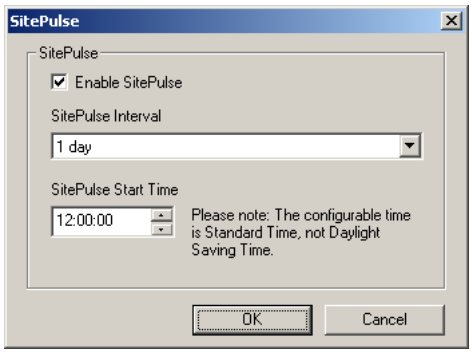

Figure 109: SitePulse Settings

SitePulse is provided as a mechanism to automatically check the operational status of a site.

SitePulse provides a mechanism where, at regular programmable intervals, a poll message is sent from ADPRO FastTx to ADPRO VideoCentral. If ADPRO VideoCentral does not receive a poll message from a configured site within a specified time period, this is highlighted to the ADPRO VideoCentral operator.

Note: Settings are required at both ADPRO FastTx and ADPRO VideoCentral to enable SitePulse. At ADPRO VideoCentral, SitePulse must be enabled when configuring the site (**Database** / **Administration** / **Configure Site** / **SitePulse**).

SitePulse Interval

Options: 1 min, 2 mins, 5 mins, 10 mins, 30 mins, 1 hour, 3 hours, 6 hours, 12 hours, 1 day, 2 days, 3 days, 7 days

Factory Default: 5 minutes

This option configures the time duration between SitePulse connections to ADPRO VideoCentral.

Recommended configuration for a network SitePulse interval is relatively short, i.e. 10 or 20 minutes.

Recommended configuration for a serial modem or TA SitePulse interval is relatively long, i.e. 1 day.

ADPRO VideoCentral settings should be typically twice that of ADPRO FastTx settings, i.e. if ADPRO FastTx SitePulse is configured for 10 minutes, then ADPRO VideoCentral should be configured to 20 or 30 minutes.

SitePulse Start Time

This option configures the time of day to perform the SitePulse. The default time is 12pm.

When a site connection is made to ADPRO VideoCentral, either by the site calling ADPRO VideoCentral, or via ADPRO VideoCentral calling the site, the SitePulse interval is reset. This interval time is not restarted until the site is disconnected.

Note: On a busy ADPRO FastTx unit that is dialing out regularly, it is possible for the ADPRO FastTx event queue to grow past the maximum size of six events, and for events such as SitePulse to be discarded. ADPRO VideoCentral does not raise a SitePulse timeout event if it is receiving events as the ADPRO FastTx unit is operating correctly. Confusion may occur if a user searches the ADPRO VideoCentral Database looking for the SitePulse notification events as they may not find them at regular intervals as expected.

Note: If a SitePulse interval of greater than a day is specified, and the ADPRO FastTx is rebooted for any reason, then the day which a SitePulse event is sent will also change.

Note: SitePulse alerts are sent either to the first listed CMS in the dial-out call list, or the connected CMS at the time of the SitePulse alert. If more than one CMS is monitoring a site, the connected CMS will receive the SitePulse alerts and the other would not receive any, which could cause a SitePulse Timeout alert to be generated.

5 Event Log

ADPRO VideoCentral has the capability to download the contents of a remote ADPRO FastTx 'transmitter log' for review. This feature is useful when carrying out system diagnostics, or investigating problems associated with event reporting from the site.

While connected to the required site, select the **Download Transmitter Log** button.

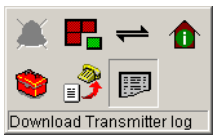

Figure 110: Download Transmitter Log Button

The **Download Transmitter Log** dialog is displayed.

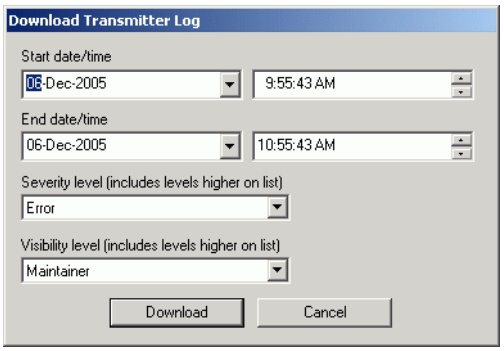

Figure 111: Download Transmitter Log Dialog

The user is prompted to enter a range of search options to decide the desired severity, visibility and time range.

The minimum time range is 5 minutes, and the maximum time range is 1 month.

The options available for severity are Fatal, Error, Warning, User action and Informative. Each option includes any options higher on the list, i.e. selecting Informative will display all log entries. (Refer to *Table 12* on page 110.)

The options normally available for visibility are Maintainer and User. Each option includes any options higher on the list, i.e. selecting User will also display log entries with Maintainer visibility. (Refer to *Table 13* on page 112.)

When the **Download** button is pressed ADPRO VideoCentral downloads the selected logs, and displays them to the user in the video viewing area.

A Transmitter Log event is generated as soon as the log has been received in full from the ADPRO FastTx. This transmitter log is downloaded as an active event, so it is necessary to acknowledge the site before disconnecting. The contents of the log are automatically sent to the ADPRO VideoCentral site database for later review.

The results are presented to the user as shown below:

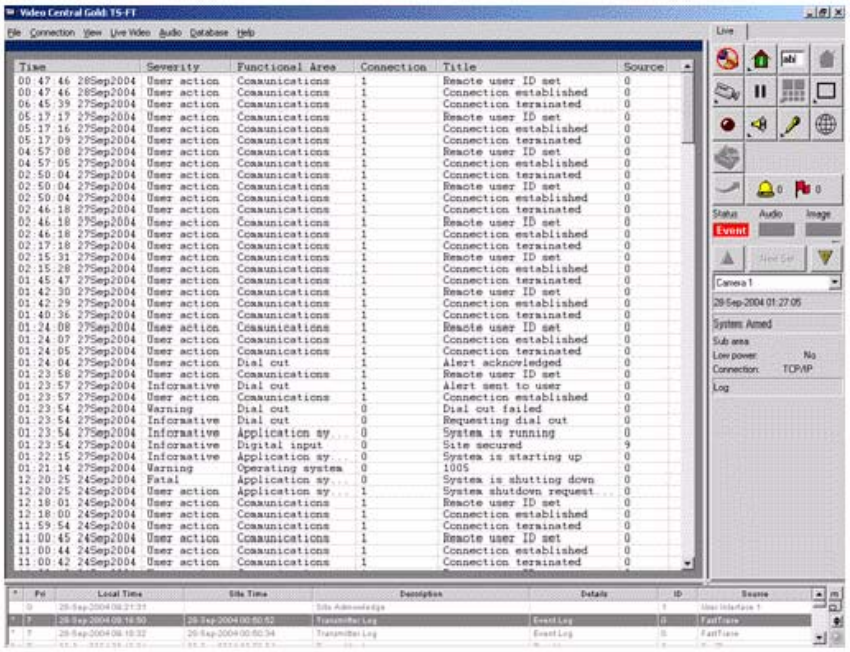

Figure 112: Transmitter Log

The fields displayed are Time, Severity, Functional Area, Connection, Title and Source. Use the vertical scroll bar to move through the log text. These details are displayed in the language that ADPRO VideoCentral was configured to use at the time they were downloaded.

5.1 Severity and Visibility Levels

The following table details the Severity assigned to the ADPRO FastTx event logs.

Table 12: Assigned Severity of ADPRO FastTx Event Logs

Severity	Functional Area	Title
Detail	Motion Detection	Activity detected
Detail	Motion Detection	Activity stopped
Detail	Control Output	Control Output active
Detail	Control Output	Control Output inactive
Informative	Alarm	Started mode
Informative	Alarm	Finished mode
Informative	Alarm Input	Alarm input active
Informative	Alarm Input	Alarm input clear
Informative	Alarm Input	Tamper active
Informative	Alarm Input	Tamper clear
Informative	Application system	System is starting up

Severity	Functional Area	Title
Informative	Application system	System is running
Informative	ATM	ATM transaction
Informative	ATM	ATM transaction started
Informative	ATM	ATM transaction finished
Informative	Database	Data files repaired
Informative	Database	Disk added
Informative	Dial out	Alert generated
Informative	Dial out	Alert sent to user
Informative	Dial out	Alert acknowledged
Informative	Dial out	Dial out requested
Informative	Dial out	Dial out failed
Informative	Digital input	Site Secure
Informative	Digital input	Site accessible
Informative	Digital input	Mode select active
Informative	Digital input	Mode select inactive
Informative	Dial out	Entry delay started
Informative	Dial out	Entry delay finished
Informative	Dial out	Exit delay started
Informative	Dial out	Exit delay finished
Informative	Motion detection	No video from camera
Informative	Motion detection	Video restored on camera
Informative	Motion detection	High video contrast on camera
Informative	Motion detection	Normal video contrast on camera
Informative	Settings	Default settings used
Informative	Settings	Settings changed by the user
Informative	Time	Daylight savings started
Informative	Time	Daylight savings ended
User Action	Application system	System shutdown requested by user
User Action	Application system	Settings changed by the user
User Action	Audio	Override refused
User Action	Audio	Override applied by user
User Action	Audio	Override cancelled by user

Severity	Functional Area	Title
User Action	Camera station	PTZ acquired by user
User Action	Camera station	PTZ released
User Action	Communications	Connection established
User Action	Communications	Connection terminated
User Action	Control output	Override released by user
User Action	Digital input	Site disarmed by remote user
User Action	Digital input	Site armed by remote user
User Action	Time	Time changed
User Action	User jobs	File updated by user
Warning	Database	Disk cleared
Warning	Database	High Temperature
Warning	Database	Normal Temperature
Warning	Dial out	Alert discarded
Warning	Settings	Settings restored from backups
Warning	User jobs	Error reading settings
Error	Application System	Settings change failed
Error	Database	Software error
Fatal	Application System	System is shutting down

The following table details the Visibility assigned to the ADPRO FastTx event logs

Table 13: Assigned Visibility of ADPRO FastTx Event Logs

Log Title	Visibility	Comments
System shutdown requested by user	Maintainer	
System is shutting down	Maintainer	
System is starting up	Maintainer	
System is running	Maintainer	
Error reading settings	Maintainer	
Default settings used	Maintainer	
Settings restored from backups	Maintainer	
Daylight saving started	User	
Daylight saving ended	User	

Log Title	Visibility	Comments
Disk cleared	Maintainer	
Disk failed or disk changed	Maintainer	
Disk added	Maintainer	
Persistent data lost	User	
Connection established	Maintainer	
Connection terminated	Maintainer	
Connecting to remote host	User	An attempt is made to establish socket connections with the remote host. The remote IP address is recorded in the Description field.
Dialing phone number	User	An attempt is made to dial a phone number. The phone number is recorded in the Description field.
Failed to connect	User	An attempt to dial a phone number or establish socket connections failed. A message describing the reason for failure is recorded in the Description field.
Incoming connection from remote host	User	An attempt is made by a remote host to establish socket connections with ADPRO FastTx. The remote IP address is recorded in the Description field.
Incoming modem connection	User	ADPRO FastTx received an incoming call on the modem.
Requesting dial out	Maintainer	Requesting dial out
Dial out failed	Maintainer	A dial out attempt failed.
Time changed	Maintainer	The time was changed.
Remote user ID set	Maintainer	The remote user ID. The description field will contain the user ID.
Override refused	Maintainer	
Override applied by user	Maintainer	
Override released by user	Maintainer	
Override cancelled by user	Maintainer	
Site armed by remote user	Maintainer	
Site disarmed by remote user	Maintainer	
Isolation refused	Maintainer	
Isolation applied	Maintainer	
Isolation removed	Maintainer	
Isolation reminder	Maintainer	
PTZ acquired by user	User	
PTZ released	User	
Multi-screen acquired	User	

Log Title	Visibility	Comments
Multi-screen released	User	
Settings changed by the user	User	
Settings change failed	User	
File updated by user	User	
Data files repaired	User	
Alarm input active	User	
Alarm input clear	User	
Tamper active	User	
Tamper clear	User	
Site secured	Maintainer	
Site accessible	Maintainer	
Mode select active	User	
Mode select inactive	User	
High temperature	Maintainer	
Normal temperature	Maintainer	
Activity detected	User	
Activity stopped	User	
No video from camera	User	
Video restored on camera	User	
Contrast alarm on camera	User	
Normal contrast on camera	User	
ATM transaction	User	
ATM transaction started	User	
ATM transaction finished	User	
Started mode	User	
Finished mode	User	
Control output active	User	
Control output inactive	User	
Alert generated	Maintainer	This log is not new, but any alerts that do not produce one of the alert-specific messages will result in this log getting generated. There should be no such alerts, so we should never see this log entry.
Alert sent to user	Maintainer	

Log Title	Visibility	Comments
Alert acknowledged	Maintainer	
Alert discarded	Maintainer	
Entry delay started	User	
Entry delay finished	User	
Exit delay started	User	
Exit delay finished	User	
No video alert generated	Maintainer	A No-Video alert was generated.
Vmd alert generated	Maintainer	A VMD alert was generated.
Contrast alert generated	Maintainer	A contrast alert was generated.
Alarm input alert generated	Maintainer	An alarm input alert was generated.
Alarm input tamper alert generated	Maintainer	An alarm input tamper alert was generated.
Digital input alert generated	Maintainer	A digital input alert was generated.
POS ATM alert generated	Maintainer	A POS/ATM alert was generated

6 Testing the ADPRO FastTx System

6.1 Installation and Testing Checklist

There are a few do's and don'ts on top of basic installation practices that should be followed to ensure a good and trouble free ADPRO FastTx installation.

- Upon unpacking the ADPRO FastTx ensure that all the required components are there and that you have received the right equipment.
- Remember that the ADPRO FastTx can only transmit what it is given. If you provide the ADPRO FastTx with a bad quality picture you will receive bad quality pictures at the receiving station. The ADPRO FastTx can not in any way improve on the picture quality it receives from the camera.
- Always check the picture quality going into the ADPRO FastTx transmitter, at the ADPRO FastTx transmitter. Just because you have good quality pictures at your video switcher or Multiplexer does not mean that you will get good quality pictures going into the ADPRO FastTx.
- When the alarm inputs of the ADPRO FastTx are triggered it will send three snapshots plus a live view of the scene back to the monitoring station. So it is vitally important that the camera is covering the complete scene protected by the sensor otherwise the operators at the monitoring station may interpret a genuine alarm as a false one if they cannot see anybody there.
- Make sure that your alarm inputs are programmed correctly for the way that your sensors are operating. If these are incorrect it may appear that the ADPRO FastTx is working but you will actually find that your alarms are triggering when your intruder leaves the sensors view (when the sensor goes back to its inactive state) rather than when the intruder originally tripped it. This may mean the intruder is not seen on the screen at the monitoring station and the event may be recorded as a false alarm.
- The ADPRO FastTx's alarm inputs are available on 15 way screw terminal blocks not a 20 way. This means that you have 10 inputs and 5 commons (all of the commons are commoned together). It is a common mistake to wire your sensors expecting to find that each of the alarm inputs has its own common.
- If your monitoring station has multiple communication devices, when installing sites try alternating which telephone number appears first on each call list; this will give the sites a better chance of contacting the monitoring station on the first attempt.
- When testing the ADPRO FastTx make sure that you walk test all of the sensors and as you trip each one make sure that the ADPRO FastTx dials the monitoring station. At the monitoring station make sure that the operator can see who tripped the alarm and that the alarm picture that is brought up is from the correct camera.
- If audio is fitted make sure that you get good quality in both directions.
- If you get bad quality audio from the control room to the site:
  - Check the available bandwidth the ADPRO FastTx has allowed for the audio at ADPRO VideoCentral.
  - Check that the cabling from the microphone is shielded and is not going near any obvious sources of electrical noise (such as monitors).

- If you are getting bad quality audio from the site to the control room:
  - Check that the audio cable is not running in the same cable as the power for the speakers and microphones.
  - Make sure that the central station is also capable of connecting into your site, as just because you can dial out does not mean they can dial in.
- If the Access/Secure or Mode Select Input is being used, ensure that it is wired correctly and that the ADPRO FastTx changes state as expected.
- If backup communications are used, ensure that if the primary communications channel is not available, that the backup channel works as expected.

7 Upgrading the ADPRO FastTx Software

The ADPRO FastTx software can be upgraded via ADPRO VideoCentral or ADPRO FastTx Viewer software running on a PC or laptop. The software can be upgraded over any communications network, as long as a connection can be established between the ADPRO FastTx and PC. The time for the upgrade to occur will vary depending on the communication speed of the link.

7.1 Software Upgrade Process

The process to upgrade the ADPRO FastTx software is as follows:

1. From ADPRO VideoCentral or the ADPRO FastTx Viewer, connect to the ADPRO FastTx to be upgraded. The CMS password must be used to gain access to the upgrade capability, so ensure that in the Site List the CMS password is entered. Also ensure that no alarms are pending.
2. Select the **Remote Upgrade** icon as shown below from the **Site Actions** flyout:

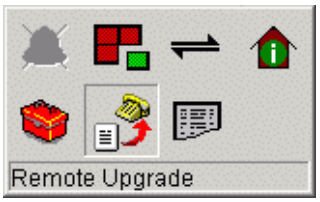

Figure 113: Upgrade Icon

3. The upgrade file selection dialog will appear. Select the file via the **Browse** function and click **OK**.

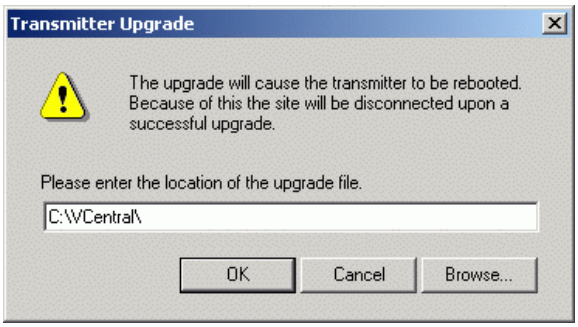
Transmitter Upgrade
The upgrade will cause the transmitter to be rebooted. Because of this the site will be disconnected upon a successful upgrade.
Please enter the location of the upgrade file.
C:\VCentral\
OK
Cancel
Browse...

Figure 114: Upgrade Dialog

4. Select **Yes** from the confirmation dialog. The 'flying papers' popup will now appear.

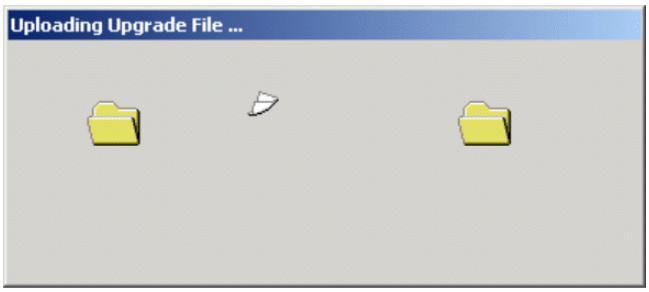

Figure 115: 'Flying Papers' Pop-up

5. Once the upgrade file has completed downloading, which may take from 30 seconds on a network connection up to 10 minutes on a modem connection, the 'flying papers' will disappear, the ADPRO FastTx will disconnect and then reboot.
6. Please wait a few minutes for the new software to restart the ADPRO FastTx system and then reconnect to the unit.
7. Check the ADPRO FastTx software has upgraded successfully by checking the software version. This is done by clicking the **Site Actions** icon and selecting the **FastTx** tab. The display tab should show the new software version number.

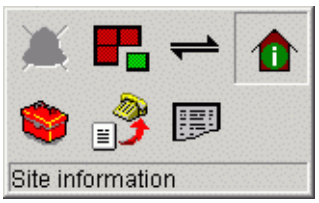

Figure 116: Site Actions Icon

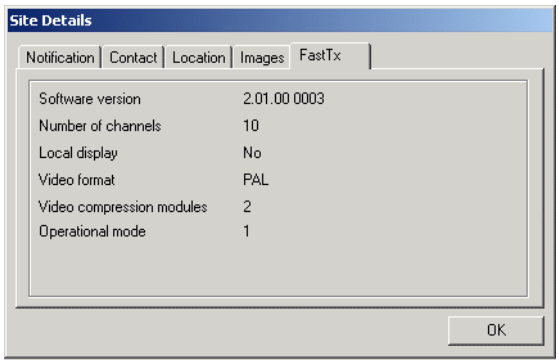

Figure 117: Site Details Tab

8 Specifications

8.1 ADPRO FastTx

An ADPRO FastTx system consists of one or more Multi-Site Video Security Systems at remote sites and a PC running the ADPRO VideoCentral software at a monitoring site. Connection is via a TCP/IP based Ethernet network, dial-up, leased telephone lines or ISDN.

Function	Description
Video inputs	Model AFTX-10 = 10 video inputs, Model AFTX-20 = 20 video inputs, 1 volt p/p video input, 75 ohm or high impedance, selectable via menu.
Colour / Monochrome Operation	Colour or monochrome. Default operation is for colour. Individual channels can be selected as monochrome (B&W).
Video output	1 BNC composite video output designed to drive a 75-ohm load.
Video standard	Either PAL or NTSC (switch selectable).
Colourburst lock range	PAL 4.433619 MHz ± 230 Hz NTSC 3.579545 MHZ ± 179 Hz
Grey Scale Resolution	256.
Video Compression Engine (VCE)	AFTX-10 = 1 VCE module AFTX-20 = 2 VCE modules Image compression is via customised H.263 compression algorithm resulting in an average of 3 KB per images at CIF resolution picture quality 6 and 6KB per image at 2 CIF resolution picture quality 7.
Video Display modes at video output	Full screen spot or sequence monitoring.
Image transmission rate	Typical transmission rates (subject to amount of scene activity): Ethernet: 25 images per second ISDN: 128 kbps = 12.5 images per second PSTN 33.6 kbps = 3 images per second
Alarm inputs	Model AFTX-10: 20 alarm contact sensing or logic level inputs. Model AFTX-20: 30 alarm contact sensing or logic level inputs. Programmable to trigger an alarm on contact opening or closure. All inputs have impedance >1 K ohm and transient protection >20 KV. Single End-of-Line (SEOL) or Dual End-of-Line (DEOL) tamper detection on each input. Screw terminal connectors. Voltage input less than 0.8 V = logic low, 7 mA (maximum). Voltage input between 3.5 V and 5.0 V = logic high. Minimum alarm contact duration = 100 milliseconds
Activity Detect Zones	The maximum activity detection area is defined by the number of available detection zones: 396 zones (22 wide x 18 high) using CIF PAL resolution (352 x 288 pixels) 330 zones (22 wide x 15 high) using CIF NTSC resolution (352 x 240 pixels) A detection zone represents a screen area of 16 x 16 pixels.

Function	Description
Control outputs	Model AFTX-10: 10 open collector outputs. Model AFTX-20: 20 open collector outputs. Screw terminal connectors. 12 Vdc (maximum), 100mA (maximum) 'On state' output voltage less than 1.1 V @ 100 mA.
General Alarm Relay output	Form C, single pole changeover. Relay contact ratings: 1.0 amp, 32 volts.
Network Port	1x Ethernet 10BaseT / 100BaseT compatible supporting TCP/IP. RJ-45 connector.
Serial Communication Interface	2x V.24 asynchronous interfaces - 8 data bits, 1 stop bit, no parity, programmable data rate steps from 9600 to 230400 bps. 1x 9 pin male D, 1x 25-pin male D. Configured as a DTE device. Supports Hayes (AT) compatible ISDN and PSTN modems in dial or leased line configuration. Support for Multilink PPP or V.120 data protocol over ISDN.
GP Serial Ports	2x General Purpose (GP) serial RS232 data ports for POS/ATM connection. 9 pin male D connectors. Configured as a DTE device. Maximum baud rate of 38,400 bps. Programmable number of data bits (6, 7 or 8), stop bits (1 or 2), parity (odd, even, none),).
Data (Transparent) Interface	Bi-directional (transparent) RS232 serial data link between the Transmitter and Receiver. Configured as a DTE device. Programmable baud rate from 1200, 2400, 4800, 9600, 19200, 38400, and 57600 bps. Programmable number of data bits (7 or 8), stop bits (1 or 2), parity (odd, even, none), flow control via handshaking (or Off). 9 pin male D connector.
I/O Interface	1x 'Mode Select' input pin. Programmable control of mode numbers assigned to pin state. 1x 'Access/Secure' input for 3rd-party control of operational state. Open=Secure, Ground=Access. Available via 15-pin male D connector.
Audio Switch Interface	Audio In/Out to VM22A or third party Audio Switcher. Bi-directional audio sent simultaneously with the video (full duplex). Bandwidth: 300 Hz to 3.3 kHz. Input impedance: >6 k ohms. Input level: 10 mV to 400 mV RMS (nom) Output impedance: >6 k ohm. Output level: 315 mV (nom)
	Serial Output for Channel Number sequencing. Open drain outputs (binary coded hex) indicating the currently selected channel. 32V maximum, 100 mA maximum, output impedance <0.5 ohm Refer to VM22A Audio Switcher manual for details of serial protocol.

Function	Description
Audio Connector	Direct connection via 9-pin screw connector. Microphone: Differential impedance >3 k ohm Single-ended impedance >6 k ohm Nominal signal level is 100 uV to 10 mV rms. Speaker: 1 Watt (max) into 8 ohm load.
	Line In: Unbalanced input impedance >6 k ohm Nominal signal level is 10 mV to 400 mV rms. Line Out: Unbalanced output impedance = 600 ohm Nominal level is 315 mV rms.
Power requirements	AC Operation 110 - 240 volts, 5A, 50 - 60 Hz
Construction & dimensions	Standard 19” rackmount, 3U high subrack to DIN4194. 482 mm (19”) W x 132 mm (5.25”) H x 280 mm (11”) D
Weight (fully configured condition)	11 kg (22 lb)
Temperature range	Operating range 0 degC to 40 degC (32 degF to 104 degF) Humidity less than 90% non-condensing.
EMC Compliance	EMC Emission: EN55022:1998 (CISPR 22:1997) / AS/NZS 3548:1995 + A1, A2 Class A Conducted and radiated emissions FCC Part 15 Class A Conducted and radiated emissions EN61000-3-2:1995 Mains harmonic current emissions EN61000-3-3:1995 Voltage fluctuations and flicker EMC Immunity: EN50130-4:1995 +A1 Alarm Systems Immunity EMC Directive 89/336/EEC and carries CE marking
Safety Compliance	EN 60950:1992 +A1, A2, A3, A4, + A11 IEC60950: 1991 +A1, A2, A3 & A4 Low Voltage Directive 73/23/EEC and carries CE marking UL Listed to US and Canadian Safety Standards UL File Number E219750
Warranty	24-months on all components except Hard Disk Drive (HDD) units where manufacturers warranty and conditions apply.

Function	Description
Supported Serial Telemetry Stations	360vision Amux IEC Baxall ZMX, Baxall ZTX BBV Burle COHU Conway CS-LiLin Dennard 2050 Diamond Elbex Ernitec GPS Grundig Harris JVC Kalatel Cyberdome, Kalatel KTD 12x Mark Mercer Molynx Pacom Panasonic (Conventional), Panasonic (New) Pelco, Pelco Coaxitron, Pelco Spectradome Philips Sensormatic, Sensormatic Controller, Sensormatic Speed Dome VII Siemens Synectics Unidex Vantage Juno VCL Vicon Video Switch Vista Powerdome Xeno Neodome
Supported Down the Coax Telemetry Stations	Baxall Coax Alt, Baxall Coax Std BBV Coax Pelco Coax Ext
Supported Transaction Devices	NCR ATM (on Ethernet port) AVE VSSI-PRO (on Serial Port) with NCR protocol. Generic Serial Interface
Supported Modems and Terminal Adaptors	Generic Modem Generic Terminal Adaptor Codex 326X Dynalink 1456VQE DataLink ELSA ISDN Terminal Adaptor EICON Diva ISDN Terminal Adaptor Hayes Accura 28.8 K US Robotics Sportster 28.8 K US Robotics Courier V.90 TA440SP 64K ISDN Terminal Adaptor TA440DP 128K ISDN Terminal Adaptor

8.2 ADPRO VideoCentral Lite Minimum Requirements

Function	Description
Minimum Version	10.00
Operating System	Windows XP Service Pack 2 (Professional Edition) or Windows 2000 (Professional Edition) Windows Server 2003
Hardware Requirements	Intel Pentium III or Celeron, processor speed 800MHz minimum
	512 MB memory
	Hard disk capacity > 10 GB
	DVD-ROM
	Windows compatible keyboard and mouse
	10BaseT / 100BaseTX compatible LAN card
	Video card / VGA driver, 128-bit recommended, PCI or AGP slot usage / 1024 x 768 pixels resolution, 16 million colours